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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF INTERNAL AFFAIRS

A SUMMARY OF OIL AND GAS DEVELOPMENTS IN PENNSYLVANIA 1955 to 1959

by

William S. Lytle, John M. Bergsten,
Addison S. Cate, Virginia M. Fairall,
Lillian A. Heeren and Walter R. Wagner

TOPOGRAPHIC AND GEOLOGIC SURVEY

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DEPARTMENT OF INTERNAL AFFAIRS
Genevieve Blatt, Secretary
TOPOGRAPHIC AND GEOLOGIC SURVEY
Carlyle Gray, State Geologist
1961

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A SUMMARY OF OIL AND GAS DEVELOPMENTS IN PENNSYLVANIA

1955 to 1959

by

William S. Lytle, John M. Bergsten, Addison S. Cate,
Virginia M. Fairall, Lillian A. Heeren, Walter R. Wagner

ABSTRACT

This bulletin is a supplement to Bulletins M31 and M39 "Summarized records of Deep Wells in Pennsylvania" in which were compiled all available records of all deep wells drilled in the State up to the end of 1954. Records are now presented for wells drilled deeper than the Tully Formation in the period 1955-59, inclusive. Skeletal well records for 680 wells are presented and their locations are shown on a map at 1:250,000 scale. Maps showing the subsurface structure of the Punxsutawney-Driftwood and Meade Fields are included. A summary of deep and shallow well drilling, with numerous illustrations including a map of the shallow gas producing areas in Armstrong and part of Westmoreland Counties, is also presented.

INTRODUCTION

Since the drilling of the Drake Well in 1859 a total of 283,500 wells (excluding service wells) had been drilled by January 1, 1960 for oil and gas in the State of Pennsylvania. Almost all the oil and gas production in Pennsylvania came from Upper Devonian and higher strata (shallow wells) prior to 1930 when considerable gas was found in the Oriskany sandstone of the Lower Devonian in the Tioga Field of north-central Pennsylvania. Wells which reach the Tully Limestone (Middle Devonian) or its equivalent or older formations are called deep wells in Pennsylvania.

By the end of 1930 only 36 deep wells had been completed in the State. By the end of 1949 an additional 559 deep wells had been drilled. In 1950 the Pennsylvania Geological Survey published Bulletin M31, "Summarized Record of Deep Wells in Pennsylvania" which contained pertinent data, such as locations, elevations, skeletal logs, and production information for the 595 deep wells drilled prior to 1950.

To keep up to date on deep-sand developments the Survey has published yearly progress reports since 1950 containing information on the deep wells completed during the year. For the period 1950 through 1954 the Progress Reports are numbered 135, 139, 143, 144, and 147. The data on the 718 deep wells contained in the five Progress Reports have been published in M39, the Survey's first five-year summary. From 1954 to 1959 there were 673 deep wells completed. Data on these wells have

been published in Progress Reports 150, 151, 154, 155, and 157, and have been compiled in this volume, the Survey's second five-year summary, M45. Bulletins M31, M39, and M45, together, contain information on virtually all the deep wells that have been drilled in Pennsylvania to the end of 1959.

Of the 1989 deep wells drilled prior to 1960 in Pennsylvania, 1134 were gas wells, 2 were oil and gas wells, 784 were dry holes, and 69 were drilled for gas storage. These gas wells had produced 805,068,000 MCF of gas at the end of 1959. This compares with a total of 7,290,749,000 MCF of gas produced by both the deep and shallow wells in the State since the discovery of natural gas in Pennsylvania. Only two deep wells have produced oil from the deeper formations. Both wells found oil in the Medina section of Silurian age.

ACKNOWLEDGMENTS

In connection with the preparation of this summary the writers acknowledge the cooperation of John A. Comet, D. E. Conaway, Charles P. Duncan, Jack Gaddess, Paul W. Garrett, Jr., John V. Goodman, A. I. Ingham, Fordyce Hauber, the Bradford District Producers Association, the Northeastern Gas and Oil Scouts, and the many others who also contributed information.

PURPOSE OF REPORT

The purpose of the present report is to make available some of the more pertinent data collected in connection with subsurface studies relating to shallow and deep sand exploration in Pennsylvania during the period 1955-59. This volume supplements Bulletins M31 and M39. The map, Plate 1, has been prepared showing the location of all deep wells drilled in the State, outside of the field or pool production limits, from the beginning of deep well drilling up to December 31, 1960. All of the wells located on the map are numbered. Skeletal logs and other data for deep wells drilled during the 1955-59 period have been assembled in tabular form in Table 15. Plates 2 and 6 present structure maps of the Punxsutawney-Driftwood and Meade Gas Fields, both of which have seen considerable development since the beginning of 1955. Plate 8 shows the developed area in the shallow gas fields of Armstrong and part of Westmoreland Counties.

EXPLANATION OF MAPS AND TABLES

The map, Plate 1 (in pocket) in six sheets, covers the entire State of Pennsylvania. The 41° N. parallel of latitude, the 78° 30′ W. and 76° 15′ W. meridians of longitude have been used as dividing lines. A scale of 1:250,000, or approximately one-inch to four miles has been used.

State and county boundaries, shown in heavy broken lines, have been superimposed on a grid pattern showing the 15-minute quadrangles of the U. S. Geological Survey subdivided into 5-minute rectangles. The names of the quadrangles appear in the upper left hand corners except where well locations interfere.

Well locations were first spotted on the 15-minute quadrangle topographic maps of the U. S. Geological Survey from location plats, farm maps, visits to the field, or other sources of information. On each quadrangle the wells drilled have been numbered consecutively. There is no repetition of numbers within a quadrangle. Positions of wells with respect to nearest (in most cases) north, south, east, and west 5-minute rectangle boundaries were measured in feet.

The locations were then transferred to the 1:250,000 scale map comprising Plate 1, on which the results obtained and the deepest formation reached by each well are shown by suitable symbols. On this map numbers have been placed after all deep wells drilled up to December 31, 1960.

Records for wells drilled only during 1955-59 period are included in Table 15, plus the records of 4 wells which were reactivated during the period, 3 wells which were drilled prior to 1950, but whose logs had never been published, and one well which had been completed during the period but the log had never been published in a Progress Report. For records of wells drilled during 1960 see the oil and gas development progress report for that year. The records of wells drilled prior to 1955 are given in Bulletins M31 and M39. Owing to the close spacing, it was not possible to include all wells in the producing areas on this map, but their records and locations are given in Table 15.

Summarized records of the deep wells drilled during the five-year period, 1955-59, have been assembled in Table 15. They are grouped by counties which are arranged in alphabetical order. Under each county, the listing is by quadrangle names, which are also arranged in alphabetical order, with the wells arranged in numerical order under each quadrangle. The data given under each well includes name of well, name of operator, township, location with respect to latitude and longitude, date on which well was completed, its elevation above sea level, depths at which the more important formations were encountered, total depth, name of deepest formation reached, and a summary of the results obtained. In the index accompanying Table 15 the wells are arranged in alphabetical order by farm names. The sheet number of the table in which the record appears is placed opposite the well name.

The elevations given in Table 15 are those furnished by the operators. In most cases these were obtained with a spirit level. Some, however, represent stadia measurements, and a few are altimeter or aneroid

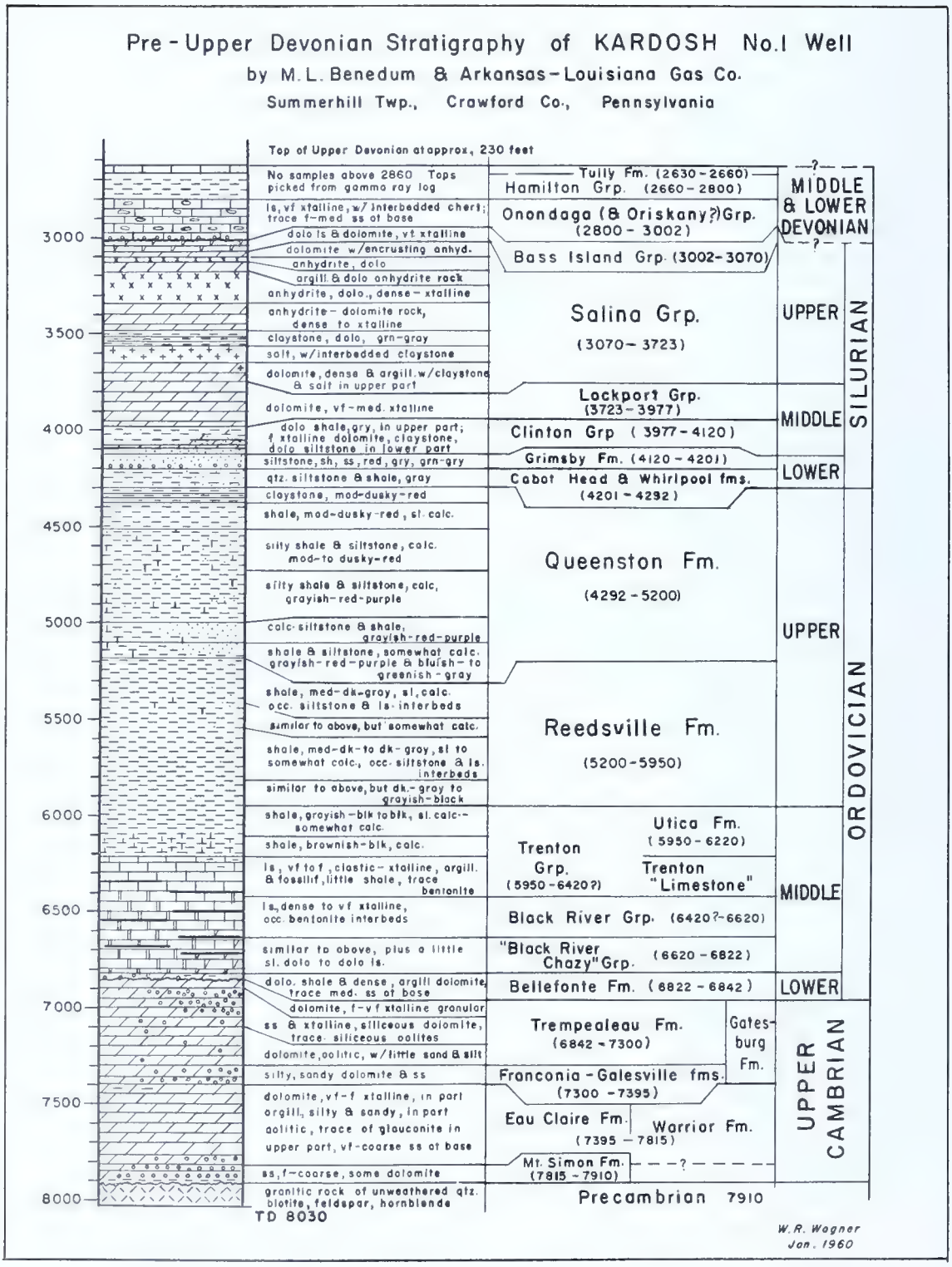

Pre-Upper Devonian Stratigraphy of KARDOSH No.1 Well
by M.L. Benedum & Arkansas-Louisiana Gas Co.
Summerhill Twp., Crawford Co., Pennsylvania
Top of Upper Devonian at approx. 230 feet
No samples above 2860 Tops picked from gamma ray log
ls, vf xtalline, w/ interbedded chert; trace f-med ss at base
dolo ls & dolomite, vf xtalline
dolomite w/encrusting anhyd.
anhydrite, dolo
argill. & dolo anhydrite rock
anhydrite, dolo., dense-xtalline
anhydrite-dolomite rock, dense to xtalline
claystone, dolo, grn-gray
salt, w/interbedded claystone
dolomite, dense & argill. w/claystone & salt in upper part
dolomite, vf-med. xtalline
dolo shale, gry, in upper part; f xtalline dolomite, claystone, dolo siltstone in lower part
siltstone, sh, ss, red, gry, grn-gry
qtz. siltstone & shale, gray
claystone, mod-dusky-red
shale, mod-dusky-red, sl. calc.
silty shale & siltstone, calc. mod-to dusky-red
silty shale & siltstone, calc, grayish-red-purple
calc. siltstone & shale, grayish-red-purple
shale & siltstone, somewhat calc. grayish-red-purple & bluish- to greenish-gray
shale, med-dk-gray, sl, calc. occ. siltstone & ls. interbeds
similar to above, but somewhat calc.
shale, med-dk-to dk-gray, sl to somewhat calc., occ. siltstone & ls. interbeds
similar to above, but dk.-gray to grayish-black
shale, grayish-blk to blk, sl. calc.-somewhat calc.
shale, brownish-blk, calc.
ls, vf to f, clastic-xtalline, argill. & fossilif, little shale, trace bentonite
ls, dense to vf xtalline, occ. bentonite interbeds
similar to above, plus a little sl. dolo to dolo ls.
dolo. shale & dense, argill dolomite, trace med. ss at base
dolomite, f-vf xtalline granular
ss & xtalline, siliceous dolomite, trace siliceous oolites
dolomite, oolitic, w/little sand & silt
silty, sandy dolomite & ss
dolomite, vf-f xtalline, in part argill, silty & sandy, in part oolitic, trace of glauconite in upper part, vf-coarse ss at base
ss, f-coarse, some dolomite
granitic rock of unweathered qtz. biotite, feldspar, hornblende
TD 8030
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
Tully Fm. (2630-2660)
Hamilton Grp. (2660-2800)
Onondaga (& Oriskany?) Grp. (2800-3002)
Bass Island Grp. (3002-3070)
Salina Grp. (3070-3723)
Lockport Grp. (3723-3977)
Clinton Grp (3977-4120)
Grimsby Fm. (4120-4201)
Cabot Head & Whirlpool fms. (4201-4292)
Queenston Fm. (4292-5200)
Reedsville Fm. (5200-5950)
Utica Fm. (5950-6220)
Trenton Grp. (5950-6420?)
Trenton "Limestone"
Black River Grp. (6420?-6620)
"Black River Chazy" Grp. (6620-6822)
Bellefonte Fm. (6822-6842)
Trempealeau Fm. (6842-7300)
Gatesburg Fm.
Franconia-Galesville fms. (7300-7395)
Eau Claire Fm.
Warrior Fm. (7395-7815)
Mt. Simon Fm. (7815-7910)
Precambrian 7910
MIDDLE & LOWER DEVONIAN
SILURIAN
UPPER
MIDDLE
LOWER
ORDOVICIAN
UPPER
MIDDLE
LOWER
UPPER CAMBRIAN
W.R. Wagner
Jan. 1960

Plate 3

barometer observations. The elevations unless otherwise marked are ground elevations.

STRATIGRAPHY

Most of the wells drilled for oil and gas in Pennsylvania are located in the Allegheny Plateau Province northwest of the Allegheny Front. They start in strata ranging in age from Upper Devonian to Permian. The Precambrian has been reached by the drill in only one well in western Pennsylvania.

The various formations that underlie north-central and western Pennsylvania are arranged in order of succession, with the oldest at the bottom, in the general geologic section, Table 1. A columnar section of the Pre-Upper Devonian stratigraphy of the Kardosh No. 1 well in western Crawford County, stratigraphically the deepest well in western Pennsylvania, is shown graphically in Plate 3. That part of the column which contains the shallow oil and gas sands is shown in more detail for the northern, middle, and southwestern districts of the oil and gas belt in Plate 4. The depths at which the more important formations were encountered in the deep wells are shown in the summarized records, Table 15.

The Oriskany sandstone outcrops shown on the map in Plate 1 were from the Geologic Map of Pennsylvania published by the Pennsylvania Geologic Survey in 1931. The outcrop pattern in the Lycoming County area is modified somewhat by later work by the Pennsylvania Geologic Survey. The Survey's new geologic map was published at the end of 1960. The first outcrops appear immediately southeast of the Allegheny Front, and outcrops are repeated many times in the Ridge and Valley Province of central Pennsylvania where the rocks are closely folded. Areas northwest of the Allegheny Front, where the Oriskany sandstone is indicated as probably absent, were delineated on the basis of information obtained from well-sample studies and from drillers' logs. This so-called no-sand line has been changed from time to time as drilling has taken place. The Boone Mountain Pool in the Punxsutawney-Driftwood Field has shown that although the Oriskany may be absent on the axis of an anticline in the so-called no-sand area it may be present on the flank of the anticline. This pool has shown the possibility of the Oriskany sandstones being developed on the flanks of the anticlines located in this no-sand area.

Prior to 1955 the major portion of the gas obtained in Pennsylvania from the deeper formations has come from the Oriskany sandstone. Since 1955 the Onondaga Formation has produced the major portion of Pennsylvania's deep gas. The Salina Formation has yielded a little gas in one well. Commercial production from the Lockport dolomite, likewise, has been confined to a single well. The Medina section in Erie and

TABLE 1

GENERAL GEOLOGIC SECTION FOR NORTH-CENTRAL and WESTERN PENNSYLVANIA

System	*Series*	*Group or Formation*	*Description*	*Approximate Thickness Feet*
PERMIAN	Dunkard	Greene	Predominately shale, in part red, sandy shale and shaly sandstone; a few massive sandstones; several thin coal and fresh-water limestone beds.	1100
		Washington	Shales, sandstones, and thin beds of coal and fresh-water limestone.	
PENNSYLVANIAN		Monongahela	Shale, and fresh-water limestone, subordinate sandstone, several workable coal beds. Waynesburg coal at top and Pittsburgh coal at base.	330
		Conemaugh	Shale, in part red, and subordinate sandstone; several thin coal and fresh-water and marine limestone beds; contains Murphy, Little Dunkard and Big Dunkard sands in descending order in southwestern district.	600
		Allegheny	Shale and subordinate sandstone and limestone; several workable coal and fire clay beds. Upper Freeport coal at top and Brookville coal at base. Contains First Gas sand in lower part in southwestern district.	275
		Pottsville	Massive medium- to coarse-grained sandstone and subordinate shale, clay and limestone. Contains First and Second Salt, and Maxton sands in southwestern district.	215
Unconformity			An erosional unconformity bevels successively younger southerly dipping Mississippian strata in going from north to south in western Pennsylvania. In McKean County, Pottsville sandstone rests upon the Knapp Formation, the lowest member of the Mississippian system; while in Fayette County, the Pottsville overlies the Mauch Chunk red shale, the highest member.	

TABLE 1—Continued

GENERAL GEOLOGIC SECTION FOR NORTH-CENTRAL and WESTERN PENNSYLVANIA—Continued

System	*Series*	*Group or Formation*	*Description*	*Approximate Thickness Feet*
MISSISSIPPIAN		Mauch Chunk	Gray and red shale, subordinate fine-grained sandstone.	0-100
		Greenbrier	Consists in descending order of limestone, a shale break, and the Loyalhanna sandy limestone.	0-80
		Pocono	Fine- to coarse-grained massive sandstone and shale; Knapp sandstone and shale at base. Contains Big Injun, Squaw, Berea and Murraysville sands in southwestern district.	570-900
DEVONIAN	Upper Devonian	Conewango	Gray shale and subordinate fine- to coarse-grained light gray sandstone; red shale prominent in lower part in northern district; some purplish-red shale in middle and southwestern districts. Contains the Venango First, Second and Third sands in the Middle District, Gantz, Fifty-Foot, Upper and Lower Nineveh, Gordon and McDonald Fourth and Fifth sands in the southwestern district. Includes Chemung Formation of earlier reports.	3300-6000 from northwest to southeast
		Conneaut	Gray and purplish-gray shale and sandy shale, subordinate sandstone. Contains the Bradford First or Glade sand in the northern district, Queen sand in the middle district, Bayard and Elizabeth sands in the southwestern district. Includes Portage Formation of earlier reports.	
		Canadaway	Gray shale and sandy shale, subordinate fine- to coarse-grained light gray sandstone and fine-grained chocolate-brown sandstone. Contains the Clarendon, Cherry Grove Bradford Second, Cooper, Bradford Third, Kane and Haskill sands in the northern district, Speechley sand in the middle district, Speechley and Bradford sands in the southwestern district.	
		Genesee	Dark gray and black shale.	

TABLE 1—Continued

GENERAL GEOLOGIC SECTION FOR NORTH-CENTRAL and WESTERN PENNSYLVANIA—Continued

System	*Series*	*Group or Formation*	*Description*	*Approximate Thickness Feet*
DEVONIAN	Middle Devonian	Tully	Argillaceous limestone.	0-150
		Hamilton	Dark gray and black shale, in part calcareous.	100-2000
		Onondaga	Cherty limestone and chert, subordinate dark, silty, shaly and glauconitic beds. Source of gas in fields in Clearfield, Indiana, Westmoreland and Fayette Counties.	8-290
	Lower Devonian	Oriskany	Medium-grained quartz sandstone, locally calcareous. Source of gas from north-central to southwestern Pennsylvania, and in Erie County.	0-175
		Helderberg	Non-magnesian, in part cherty, frequently very fossiliferous limestone.	0-350
SILURIAN	Upper Silurian or Cayugan	Bass Island or Keyser	Argillaceous dolomitic limestone.	20-450
		Salina	Interbedded, dense, argillaceous, dolomitic limestone, gray shales and clays for the most part either calcareous or dolomitic. Numerous interbedded layers of anhydrite and salt. Small gas production in McCance field, Westmoreland County.	450-2000
	Middle Silurian or Niagaran	Lockport	Very fine, crystalline, brownish-gray to very dark-grayish-brown relatively pure dolomite. A salt-water zone frequently present. Small gas production in Mercer County.	240-320
		Clinton	Shale, dolomitic shale, subordinate dolomite, and fine-grained, light-gray sandstone at base.	100-300
	Lower Silurian or Medina	Grimsby or "Red Medina"	Red and gray sandstone and shale. Gas and minor oil production in northwestern Pennsylvania.	70-220
		Cabot Head	Gray shale and subordinate very fine-grained light-gray sandstone.	
		Whirlpool or "White Medina"	Fine-grained light-gray sandstone. Minor gas production in northwestern Pennsylvania.	

GENERAL GEOLOGIC SECTION FOR NORTH-CENTRAL and WESTERN PENNSYLVANIA—Continued

System	*Series*	*Group or Formation*	*Description*	*Approximate Thickness Feet*
ORDOVICIAN	Upper Ordovician or Cincinnatian	Queenston	Red shale, in part silty and sandy.	850-1200
		Oswego	Very fine-grained gray sandstone.	0-60
		Reedsville	Gray shale.	700-800
		Utica	Black shale.	100-300
	Middle Ordovician or Champlainian (and possibly Upper Canadian)	Trenton	Fine to very fine crystalline, argillaceous and fossiliferous, brownish-gray limestone, with interbedded dark-gray to grayish-black calcareous shale. Near base is usually a 20′ to 50′ zone with a little interbedded light-gray bentonite or silty limestone. In Erie Co., top 10′ to 15′ is dolomitic. Thickness increases from 200′ to 440′ in north to northwesterly direction. Greatest thickness in Erie and northern Warren Cos.	650-800
		Black River and Chazy?	Dense to very fine crystalline, occasionally fossiliferous, light-brownish to brownish-gray limestone. In northwestern Pa. the lower part contains some interbedded dolomite and dolomitic limestone. Thickens from 200′ to 350′ in southerly direction. Greatest thickness in northern Butler and southern Mercer Co.	
		Chazy? and Upper Beekmantown?	Silty and sandy dolomite and limestone in upper part; dolomite, dolomitic shale and silty shale in lower part, with a dolomitic sandstone commonly found at base. Thickness 30′ to 150′.	
	Unconformity		Approximately 4,500 feet of Lower Ordovician strata present in central Pa. are missing in western Pa.	
	Lower Ordovician or Canadian?	Lower Beekmantown?	Fine to medium crystalline, siliceous, light-gray dolomite. Thickens in southerly and easterly direction from northwest corner of Pennsylvania.	0-190

TABLE 1—Continued

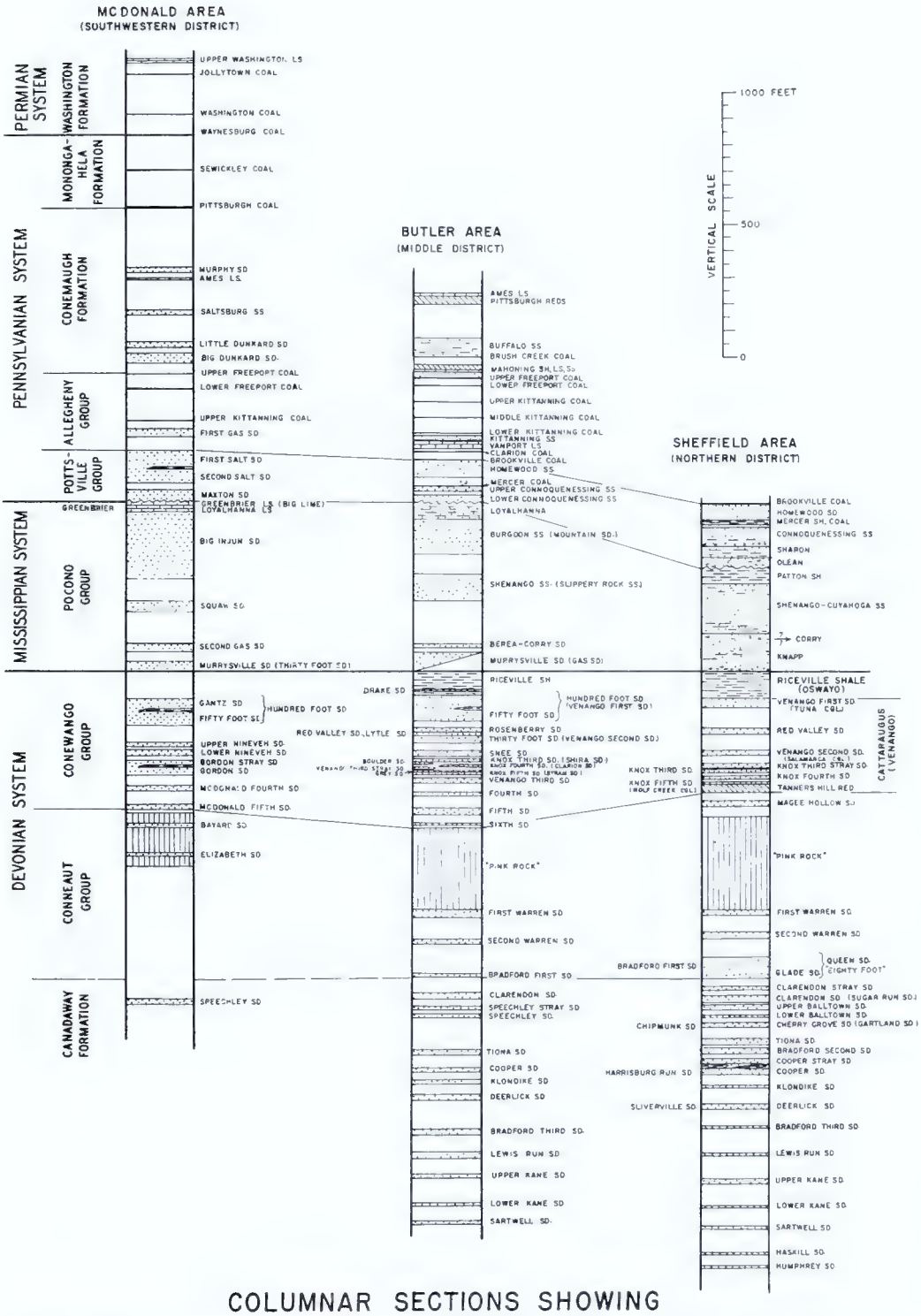
GENERAL GEOLOGIC SECTION FOR NORTH-CENTRAL and WESTERN PENNSYLVANIA—Continued

System	*Series*	*Group or Formation*	*Description*	*Approximate Thickness Feet*
CAMBRIAN	Upper Cambrian	Gatesburg	Upper member—Dolomitic sandstone and/or fine to medium crystalline, sandy dolomite, light-brownish-gray. 60′ to 200′. Middle member—Fine to medium crystalline, sandy, oolitic to mottled, brownish- to light-brownish-gray dolomite, with dolomitic limestone at base. 200′. Lower member—Fine to medium grained sandstone, with interbedded sandy dolomite and a little gray shale. 100′.	360-500
		Warrior: Eau Claire	Dark-brownish to brownish-gray dolomite, in part sandy and oolitic; some interbedded gray shale and shaly dolomite especially near top.	400±
		Warrior: Mt. Simon	Light- to very light-gray sandstone, fine to coarse grained, dolomitic to siliceous.	100±
			Approximately 9,000′ of Lower and Middle Cambrian strata present in South Mountain area of south-central Pa. are absent from western and north-central Pa.	
PRE-CAMBRIAN			Igneous and/or metamorphic rocks.	

Revised

1961, after C. R. Fettke,

1956



COLUMNAR SECTIONS SHOWING

STRATIGRAPHIC POSITIONS OF OIL AND GAS SANDS OF WESTERN PENNSYLVANIA

JOHN M BERGSTEN, 1957

Plate 4

Crawford Counties has contributed some gas during the last 5 years. The potentialities of the Ordovician and Cambrian strata under most of the Plateau Province of north-central and western Pennsylvania are still unknown. Too little exploratory drilling has been conducted thus far. Exploration for gas in the shallow-sand fields continues in the Speechley, Balltown, and Bradford Third sands. Plate 8 shows the shallow gas wells drilled in 1959 in Armstrong and part of Westmoreland Counties.

Most of the drilling for oil is being done in areas where secondary recovery methods are being used. The Venango Group, the Clarendon, and the Bradford sands continue to hold the attention of most of the operators who operate secondary recovery projects.

Figure 1 shows the annual production of natural gas in Pennsylvania by years from 1882 to 1959. The number of deep and shallow wells drilled during the period 1957-59 is shown in Table 2. The natural gas produced in Pennsylvania from 1951 to 1955 by counties is shown in Table 3. A summary of oil and gas production and reserves in Pennsylvania is given in Table 4.

SUMMARY OF DEEP-SAND EXPLORATION AND DEVELOPMENT 1955-59

The opening of the period covered by this bulletin was highlighted by the discovery of the Greenlick gas pool in the Leidy Field in northeastern Clinton and adjacent southeastern Potter County in 1955. At the close of 1960 this Oriskany sand gas pool covered 5300 acres and had produced 49,000,000 MCF of gas from 22 wells. The Rockton and Reed Pools were also discovered during 1955. The production limits of these two pools plus the Boone Mountain Pool discovered in 1958 and the Deemer and Benezette-Driftwood Pools have merged into a field of production extending almost 60 miles in a northeast-southwest direction from western Cameron County to Indiana County; the field is now referred to as the Punxsutawney-Driftwood Field.

The northern part of this field, the Benezette-Driftwood Pool, produced from the Oriskany sand while the rest of the field to the south produced from the Onondaga chert-Oriskany sandstone (Plate 7) interval. Other significant developments in this field were the discovery of gas production in the Onondaga-Oriskany interval on the southeast flank of the Sabinsville Anticline and on a divide in the Caledonia Syncline (Plate 2).

Two important discoveries were made at the close of the 1955-59 period. The first of these was the discovery of the Ole Bull Pool in the Leidy Field which found gas production in the Oriskany. The second was the Ohiopyle Field in Fayette County which produced gas from the Onondaga chert.

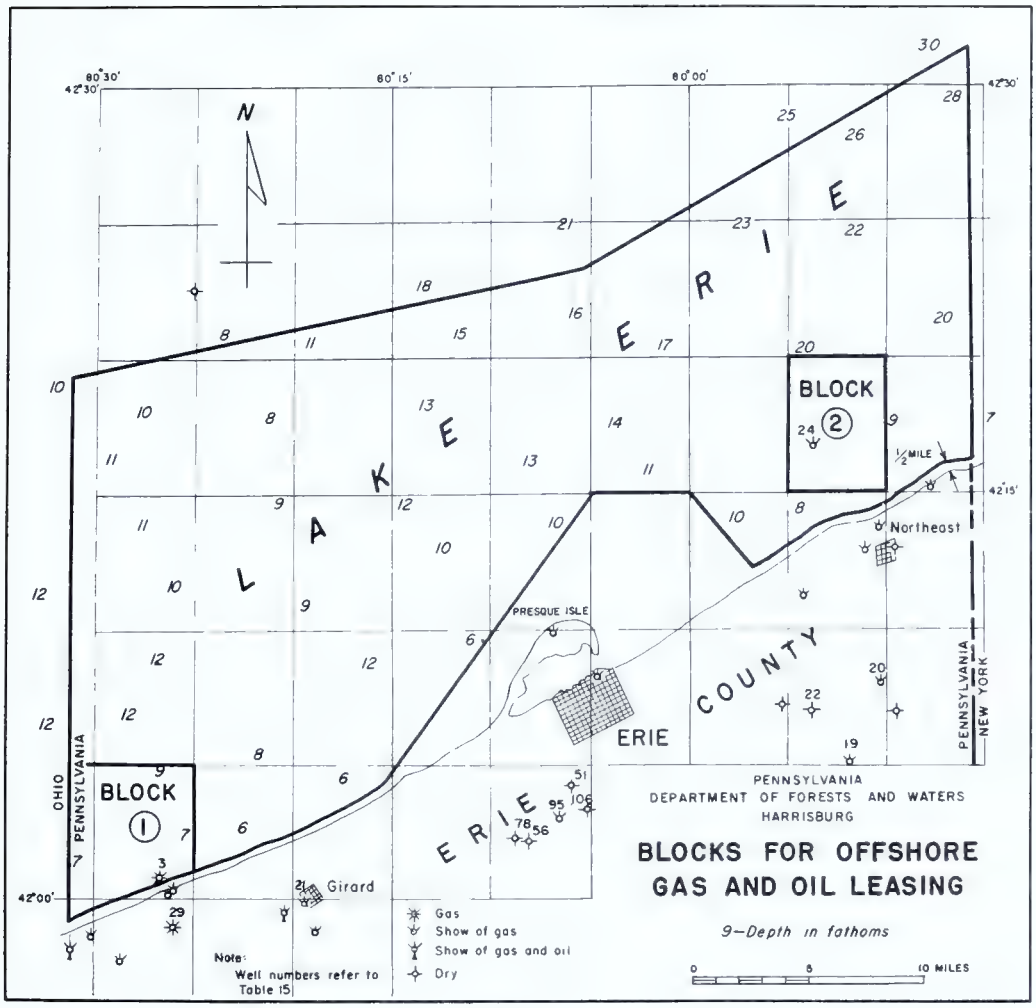

BLOCKS FOR OFFSHORE GAS AND OIL LEASING
9—Depth in fathoms
PENNSYLVANIA
DEPARTMENT OF FORESTS AND WATERS
HARRISBURG
LAKE ERIE
ERIE COUNTY
BLOCK 1
BLOCK 2
PRESQUE ISLE
Northeast
Girard
OHIO
PENNSYLVANIA
NEW YORK
N
80°30'
80°15'
80°00'
42°30'
42°15'
42°00'
½ MILE
0
5
10 MILES
Gas
Show of gas
Show of gas and oil
Dry
Note:
Well numbers refer to Table 15

Plate 5

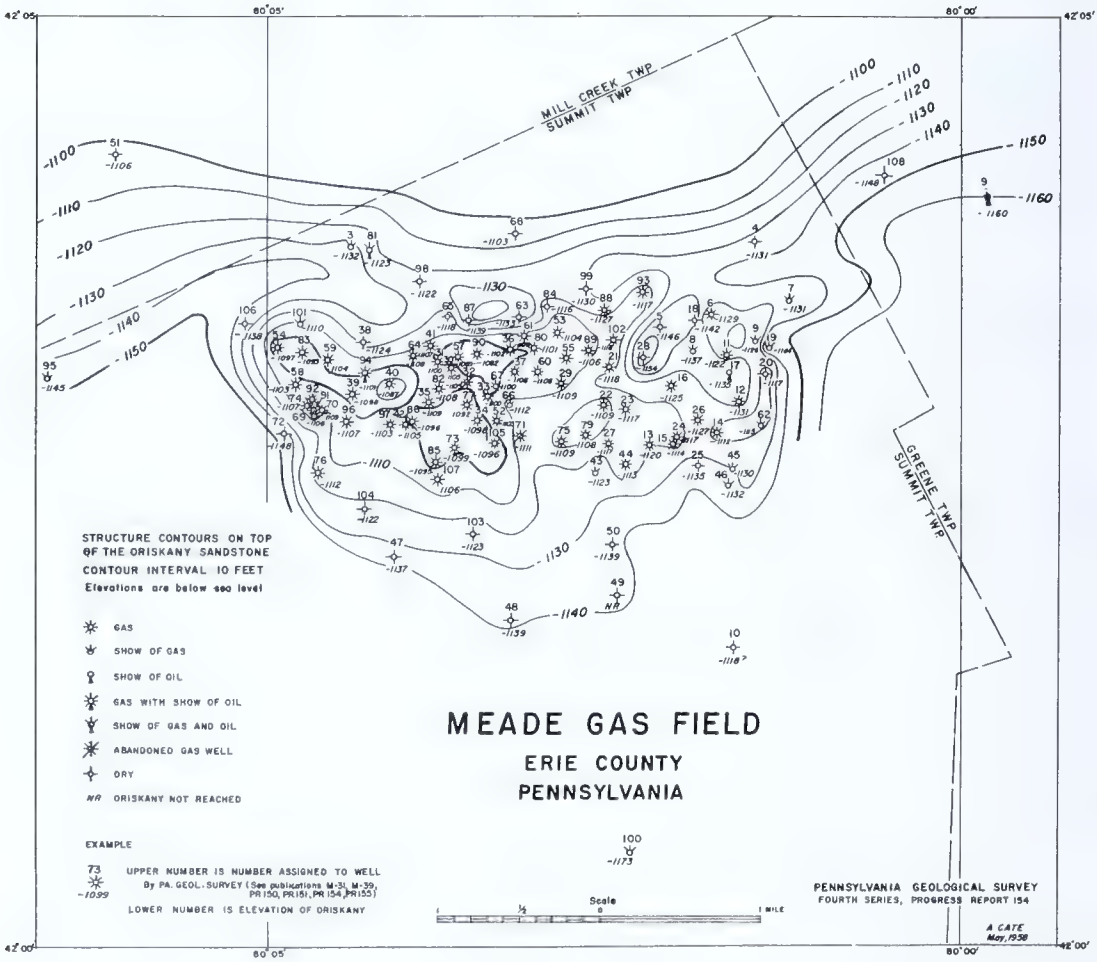
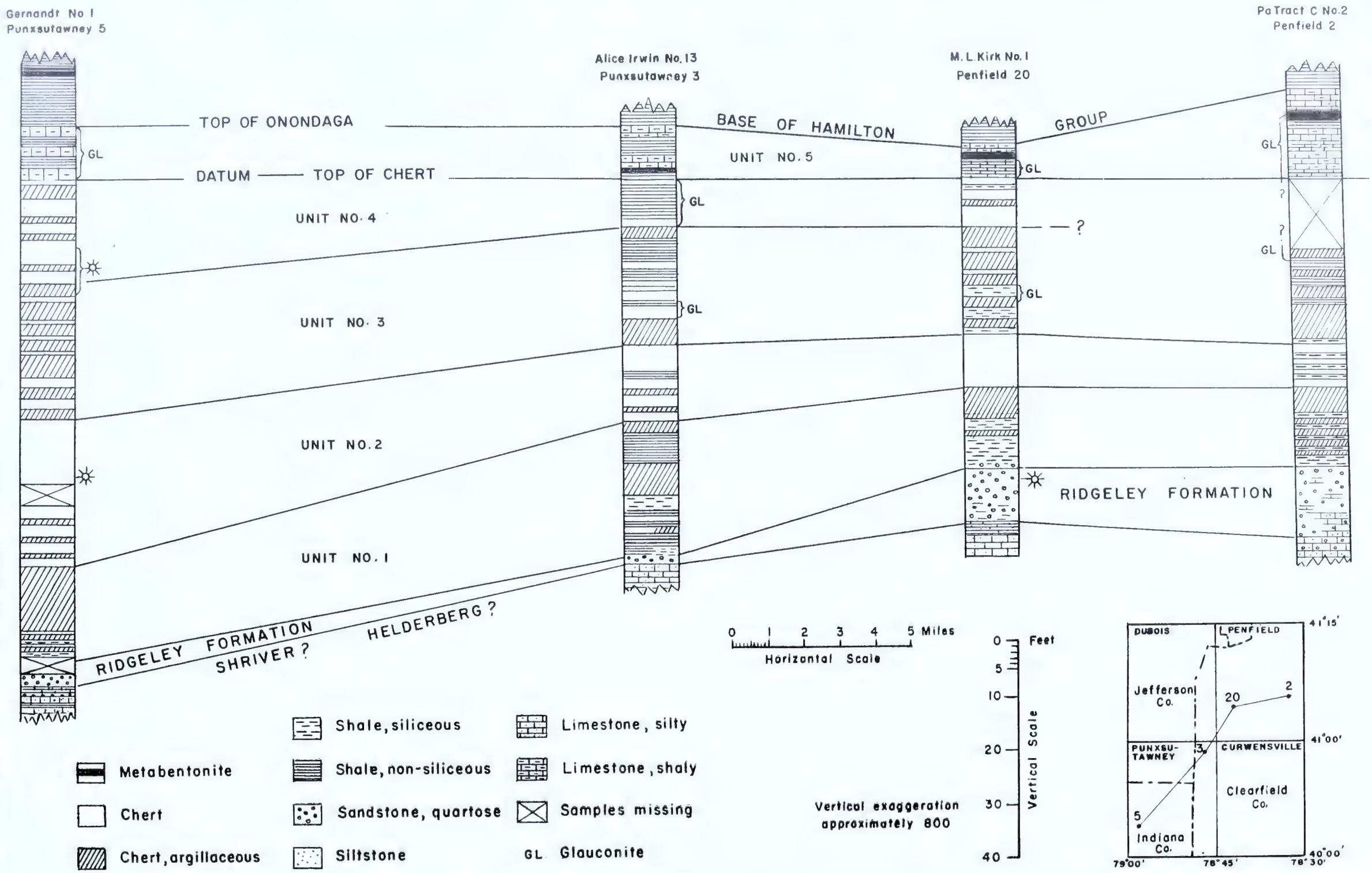

MEADE GAS FIELD
ERIE COUNTY
PENNSYLVANIA
STRUCTURE CONTOURS ON TOP OF THE ORISKANY SANDSTONE
CONTOUR INTERVAL 10 FEET
Elevations are below sea level
GAS
SHOW OF GAS
SHOW OF OIL
GAS WITH SHOW OF OIL
SHOW OF GAS AND OIL
ABANDONED GAS WELL
DRY
NR ORISKANY NOT REACHED
EXAMPLE
73
-1099
UPPER NUMBER IS NUMBER ASSIGNED TO WELL By PA. GEOL. SURVEY (See publications M-31, M-39, PR150, PR151, PR154, PR155)
LOWER NUMBER IS ELEVATION OF ORISKANY
MILL CREEK TWP
SUMMIT TWP
GREENE TWP
SUMMIT TWP
Scale
½
0
1 MILE
PENNSYLVANIA GEOLOGICAL SURVEY
FOURTH SERIES, PROGRESS REPORT 154
A. CATE
May, 1958
42° 05'
80° 05'
80° 00'
42° 00'

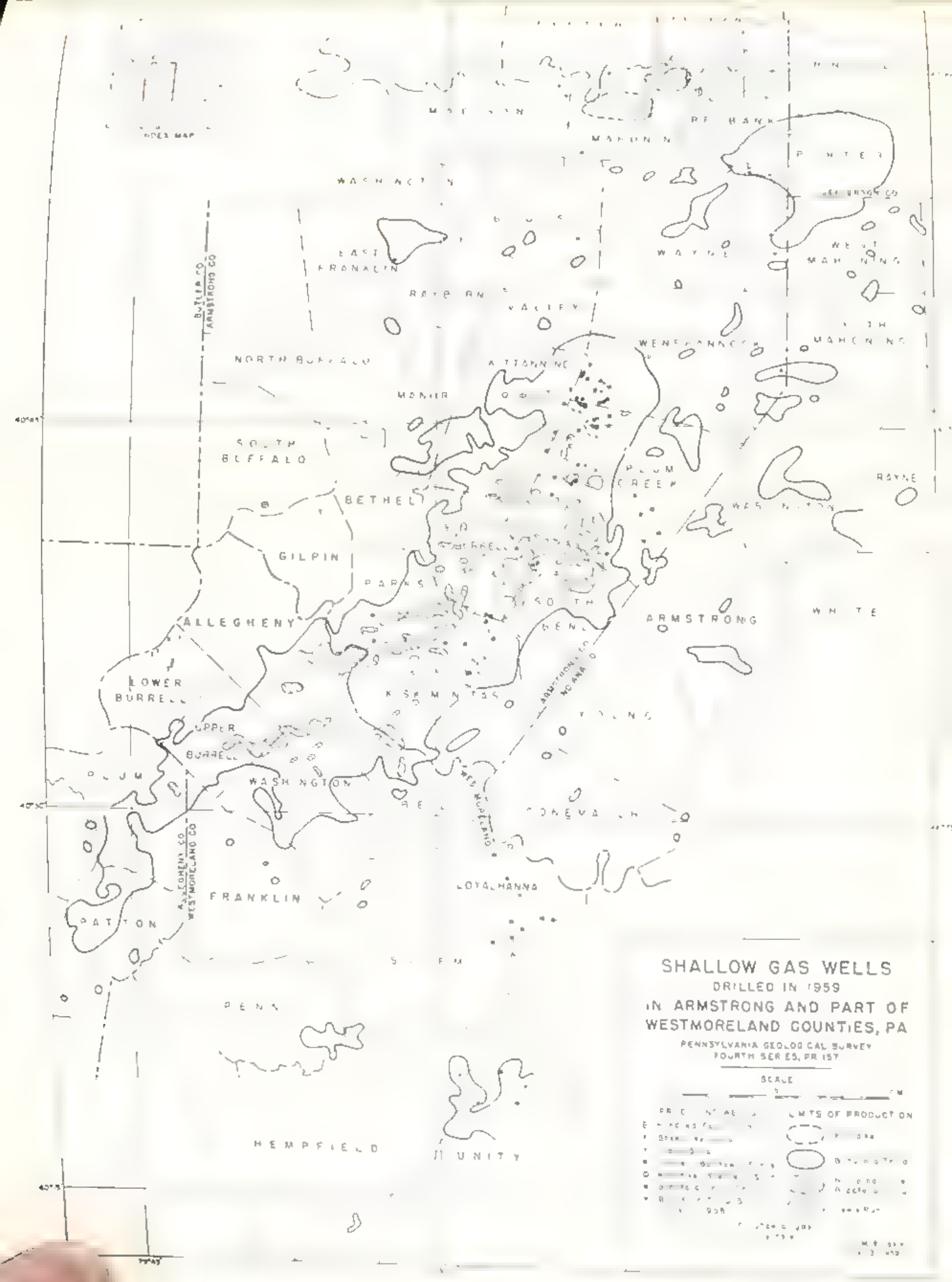
Plate 6

SUBSURFACE STRATIGRAPHY OF ONONDAGA GROUP AND RIDGELEY FORMATION IN NORTHWESTERN CLEARFIELD AND NORTHERN INDIANA COUNTIES



W. R. Wagner 1959

Plate 7

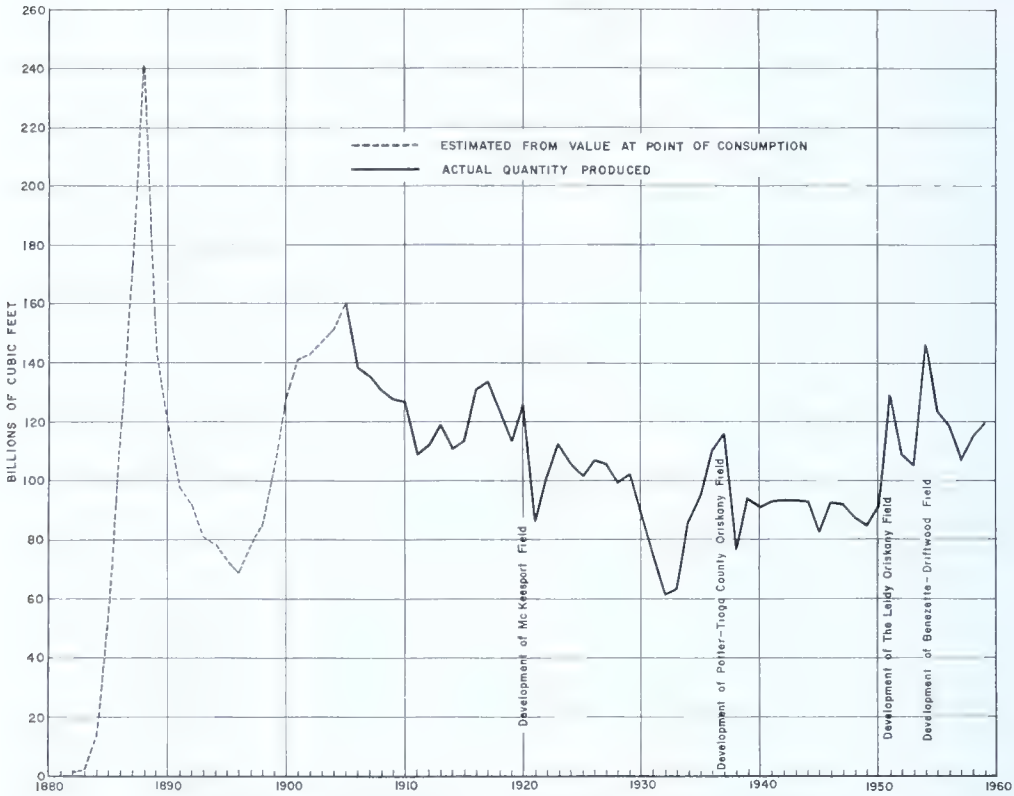

SHALLOW GAS WELLS
DRILLED IN 1959
IN ARMSTRONG AND PART OF
WESTMORELAND COUNTIES, PA
PENNSYLVANIA GEOLOGICAL SURVEY
FOURTH SERIES, PR 157
SCALE
LIMITS OF PRODUCTION
WASHINGTON
EAST FRANKLIN
WAYNE
WEST MAHONING
NORTH BUFFALO
MANOR
SOUTH BUFFALO
BETHEL
GILPIN
ALLEGHENY
LOWER BURRELL
UPPER BURRELL
WASHINGTON
FRANKLIN
LOYALHANNA
ARMSTRONG
WHITE
RAYNE
HEMPFIELD
UNITY
BUTLER CO
ARMSTRONG CO
WESTMORELAND CO

The Meade Field (Plate 6) in Summit Township, Erie County, and the Leidy Pool of Clinton County have been depleted of gas and have been converted to gas storage.

A number of other deep gas fields were discovered during 1955-59. They include the Jacksonville, Johnstown, Nolo, and Seven Springs Fields of southwestern Pennsylvania. The most easterly production comes from the Purcell Field discovered in 1957 in Bedford County. A number of small Medina Pools were discovered in Erie and Crawford Counties. One of these pools produced some oil from the Medina. Two wells were drilled Offshore in Lake Erie, both reaching the Gatesburg (Upper Cambrian) and finding saltwater in this formation. The Offshore Block No. 1 well (Plate 5) found some gas in the Medina but both offshore wells have been plugged and abandoned. Hydraulic fracturing of deep wells has become a standard completion practice in Pennsylvania.

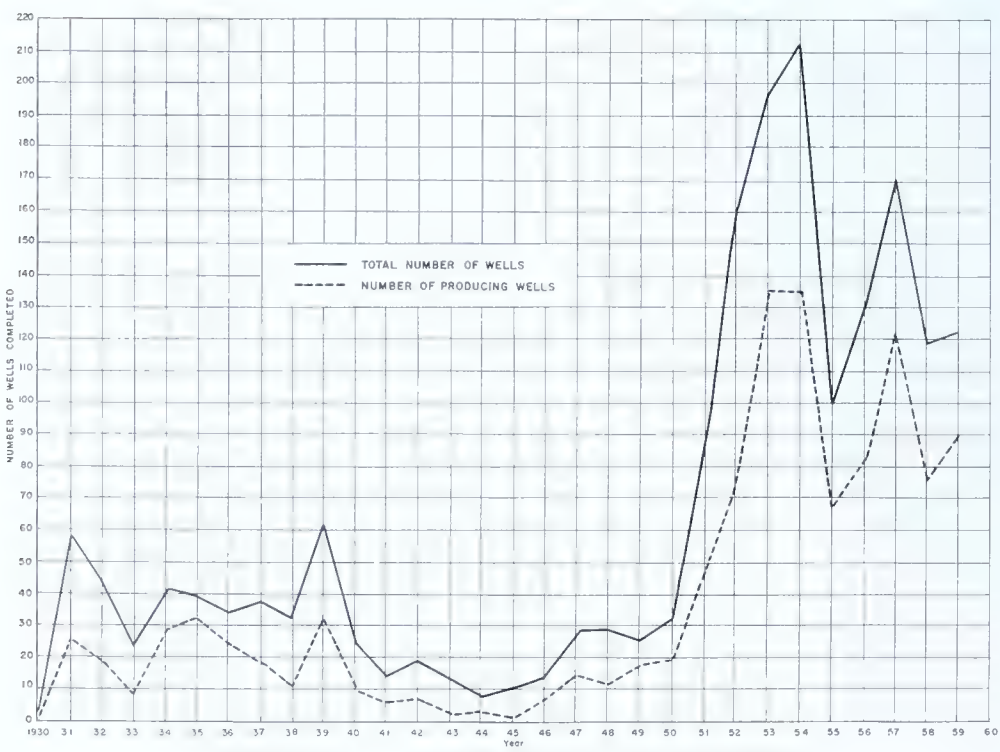
The annual rate of deep sand exploration and development from 1930-59 is shown in Figure 2. Table 5 is a summary of the deep well completions in Pennsylvania from 1956-59. A summary of deep drilling by counties in Pennsylvania for the 5-year period is shown in Table 6. The total volume of gas produced from the deeper formations in Pennsylvania had reached 805,068,000 MCF by the end of 1959. This represents about 11 percent of all the gas that has been produced in the State thus far. The gas has come from about 167,825 acres of land and 1134 gas wells were drilled to obtain it. Production and other data for the various deep-sand gas fields from which the gas has been obtained have been assembled in Table 9. The H. E. Finnefrock No. 1 well of the New York State Natural Gas Corporation, completed in February 2, 1951, in the Leidy Field of Clinton County, with an initial open flow capacity estimated in excess of 150,000 MCF of gas per day, is the largest well ever drilled in the Appalachian Basin. The Arthur Bennett No. 1 well of the California Company in Sullivan County is the deepest well at present in Pennsylvania. It started in the Catskill facies of the Upper Devonian and was abandoned in Upper Ordovician shales at a total depth of 12,343 feet. Pennsylvania's first basement test was drilled in Summerhill Township, Crawford County by M. L. Benedum and Arkansas-Louisiana Gas Company on the Joe Kardosh farm. The well was plugged and abandoned at a total depth of 8030 feet after reaching Precambrian granite at 7910 feet. The Lewis Forro, Jr., No. 1 was drilled in Beaver Township, Crawford County, becoming Pennsylvania's first deep commercial oil producer with an initial production of 27 bbls. of oil per day from the Medina section.

The State's deepest gas producer is Royal Rhodes No. 1 well in Jenner Township, Somerset County, which produced 3100 MCF of gas from the Oriskany at 8420 feet. The 673 deep wells drilled in Pennsylvania



ANNUAL PRODUCTION OF NATURAL GAS IN PENNSYLVANIA

Figure 1



ANNUAL RATE OF DEEP SAND EXPLORATION AND DEVELOPMENT

Figure 2

during the period 1955-59 are classified according to deepest formation reached, in Table 7; according to depth, in Table 8.

TABLE 8. Classification of Deep Wells in Pennsylvania According to Depth, 1955-1959

Depth (feet)	*Number of wells*
2,500 or less	92
2,500- 5,000	70
5,000- 7,000	113
7,000- 8,000	342
8,000- 9,000	54
9,000-10,000	2
Total	673

SUMMARY OF SHALLOW-SAND EXPLORATION AND DEVELOPMENT 1955-59

A marked decline in drilling activity was seen in the shallow-sand territory of western Pennsylvania in 1955 as compared with the previous years. Most of this decline was in the shallow oil fields outside of the secondary recovery projects. Table 10 (5 sheets) shows the shallow-sand well completion for Pennsylvania for the years 1955 to 1959. About 200 shallow-sand gas wells and 20 shallow-sand oil wells were drilled each year outside of the secondary recovery areas. Table 11 (5 sheets) shows the shallow-sand wells deepened during the 5 year period. About 20 shallow-sand wells are deepened yearly outside of the secondary recovery fields. Most of the shallow-sand oil wells were drilled in the old fields as development wells. The most active area in the shallow-gas fields was in Armstrong, Clarion, Indiana, Jefferson, and Westmoreland Counties (Plate 8) where exploration and development took place in the search for gas in the Speechley, Balltown, and Bradford Third sands. Hydraulic fracturing of these sands raised the production of the gas wells from 30 to 50 times above the initial production. Wells that had produced for years or had been abandoned were cleaned out and fractured. The above older Upper Devonian sands respond very well to fracturing while the younger Upper Devonian sands have not responded to this method of completion. Considerably more experimental work must be done before fracturing can be ruled out as uneconomical in the younger Upper Devonian.

Two shallow-gas fields of note were discovered during the 5-year period, The Laurence R. Richards No. 1 well of Transcontinental Production Company in Lackawanna County in northeastern Pennsylvania found 100 MCF of gas per day in the Chemung Group (Upper Devonian in age), discovering the Harvey Lake Field. In Elk County the Logan L. Bond No. 1 well by New York State Natural Gas Corporation found 539 MCF of gas per day in the Elk sand, discovering the Bond Pool.

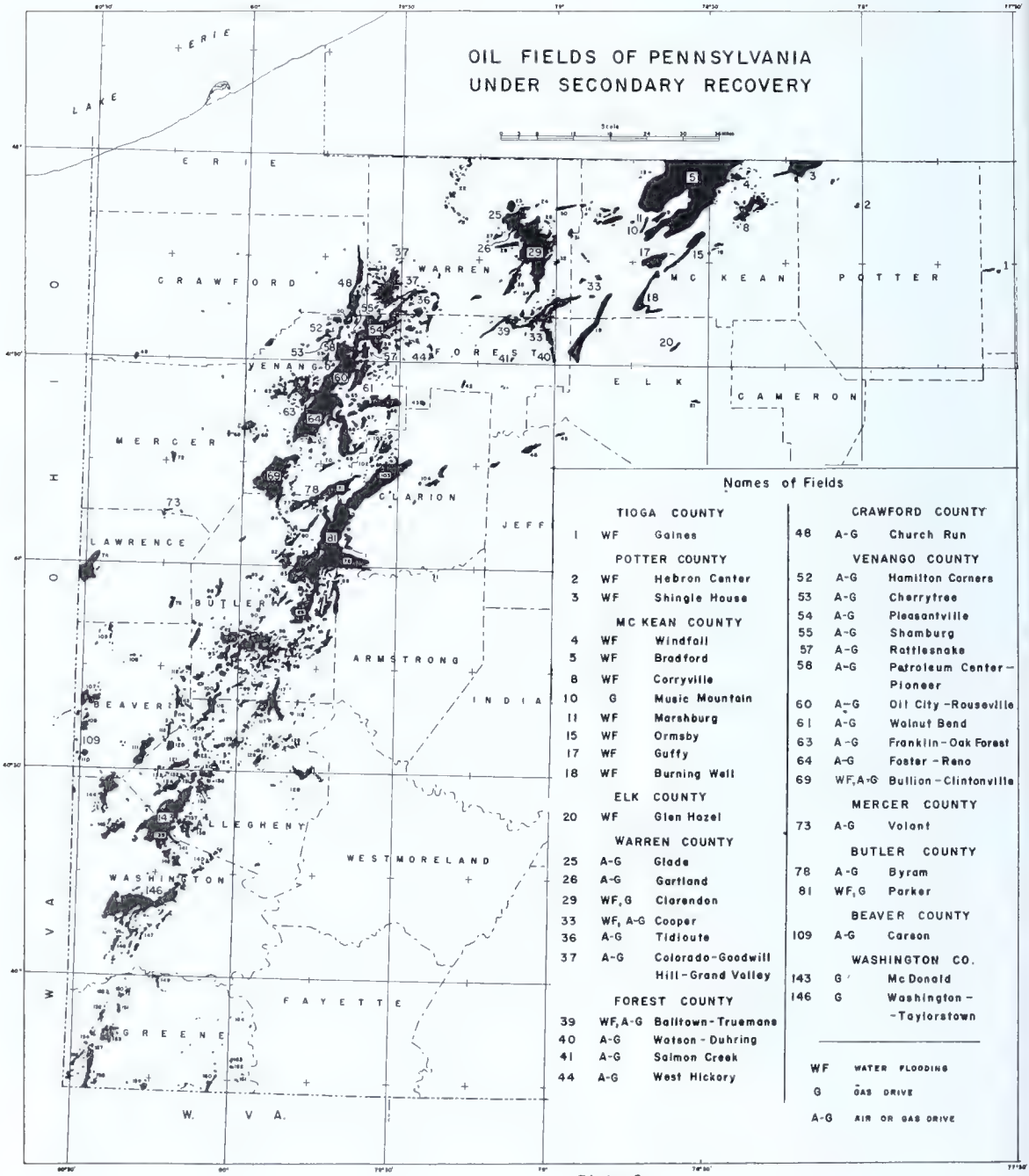

OIL FIELDS OF PENNSYLVANIA
UNDER SECONDARY RECOVERY
Scale
LAKE ERIE
ERIE
CRAWFORD
WARREN
MC KEAN
POTTER
VENANGO
FOREST
ELK
CAMERON
MERCER
CLARION
JEFF
LAWRENCE
BUTLER
ARMSTRONG
INDIA
BEAVER
ALLEGHENY
WESTMORELAND
WASHINGTON
FAYETTE
GREENE
OHIO
W. VA.
W. VA.
Names of Fields
TIOGA COUNTY
1 WF Gaines
POTTER COUNTY
2 WF Hebron Center
3 WF Shingle House
MC KEAN COUNTY
4 WF Windfall
5 WF Bradford
8 WF Corryville
10 G Music Mountain
11 WF Marshburg
15 WF Ormsby
17 WF Guffy
18 WF Burning Well
ELK COUNTY
20 WF Glen Hazel
WARREN COUNTY
25 A-G Glade
26 A-G Garland
29 WF, G Clarendon
33 WF, A-G Cooper
36 A-G Tidioute
37 A-G Colorado-Goodwill Hill-Grand Valley
FOREST COUNTY
39 WF, A-G Balltown-Truemans
40 A-G Watson-Duhring
41 A-G Salmon Creek
44 A-G West Hickory
CRAWFORD COUNTY
48 A-G Church Run
VENANGO COUNTY
52 A-G Hamilton Corners
53 A-G Cherrytree
54 A-G Pleasantville
55 A-G Shamburg
57 A-G Rattlesnake
58 A-G Petroleum Center-Pioneer
60 A-G Oil City-Rouseville
61 A-G Walnut Bend
63 A-G Franklin-Oak Forest
64 A-G Foster-Reno
69 WF, A-G Bullion-Clintonville
MERCER COUNTY
73 A-G Volant
BUTLER COUNTY
78 A-G Byram
81 WF, G Parker
BEAVER COUNTY
109 A-G Carson
WASHINGTON CO.
143 G McDonald
146 G Washington-Taylorstown
WF WATER FLOODING
G GAS DRIVE
A-G AIR OR GAS DRIVE

Plate 9

The most active area in the shallow-sand oil fields outside the secondary recovery areas was the Sugar Grove in Warren County where about 31 wells were drilled averaging about 7 bbls. of crude oil per day from the Queen sand.

About 400 to 700 shallow-sand wells are drilled annually in the secondary recovery projects of Pennsylvania. Most of these are drilled in the Bradford Field of McKean County where about half of the wells drilled are input wells and the other half producing wells in water flood projects.

Plate 9 shows the oil fields of Pennsylvania under secondary recovery the Plate 10 shows a generalized columnar section of the oil bearing sands subjected to air or gas drive or water flooding. The annual production of crude oil in Pennsylvania from 1859-1959 is shown in Figure 3. The number of producing oil wells and the number of barrels of crude oil produced by counties from 1954-59 are shown in Table 12. The sale price of a barrel of crude oil in Pennsylvania for the years 1955-59 is shown on Table 13.

Figure 4 shows the crude oil prices, production, and well completions for the Bradford Field from 1930-1959. The crude oil production of the Bradford District of Pennsylvania and New York, Music Mountain Field excluded, is shown in Figure 5. A summary of county oil reserves as of January 1, 1960 is shown in Figure 14-A. A summary of the annual discoveries and reserves of crude oil for Pennsylvania from 1919-59 is shown in Figure 14-B.

Pennsylvania had 61 active natural gas storage pools or fields, both shallow and deep, at the close of 1959. The pool underlying the most acreage is the Leidy Pool in Clinton County, with 15,120 acres and a total reservoir capacity of 95,000 MMCF. The Oakford Storage Field covers 13,548 acres and has a reservoir capacity of 110,758 MMCF.

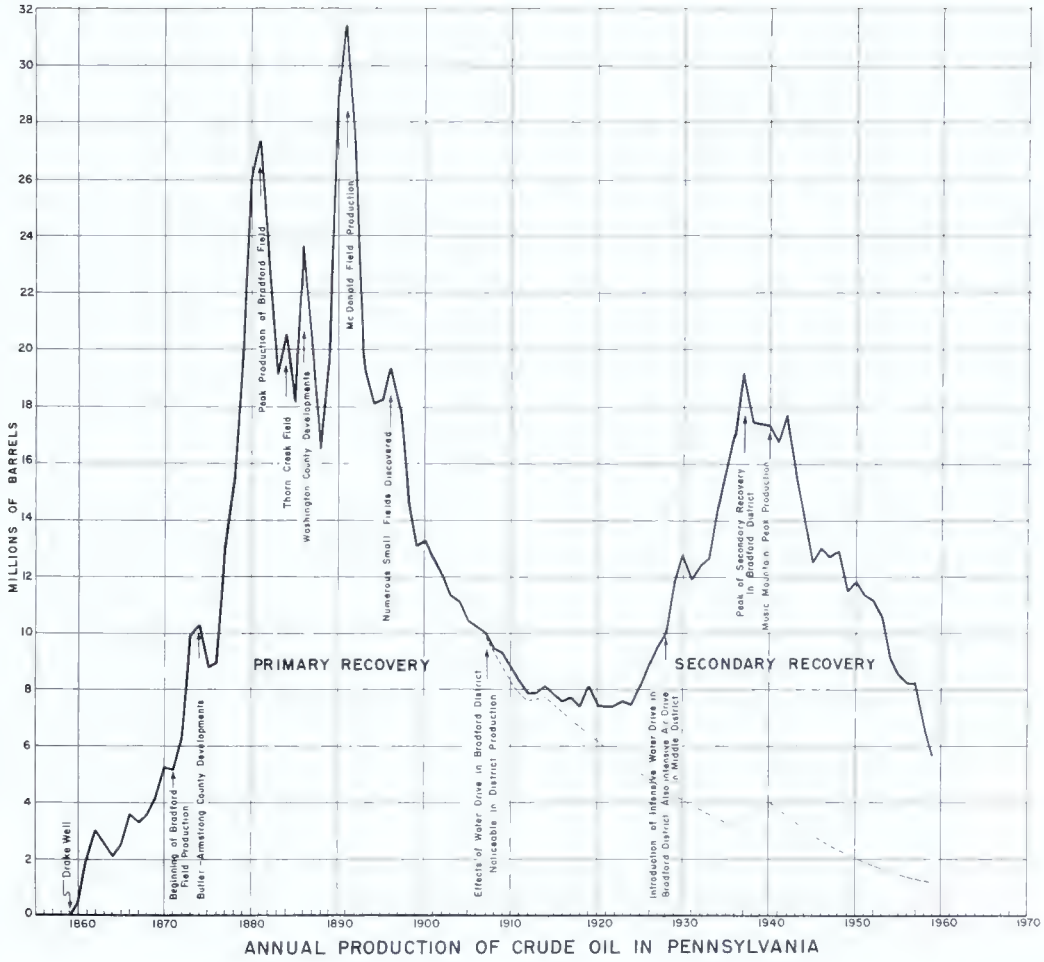
Natural gas storage figures for the year 1959 as published by the AGA show Pennsylvania as the ranking State in all phases of gas storage. The following figures are those published by the AGA for Pennsylvania: the maximum gas in storage 424,000 MMCF; total input 219,000 MMCF; maximum day output 2,956 MMCF; total output 177,000 MMCF, and ultimate capacity 497,000 MMCF.

Generalized Columnar Section Showing the Oil Bearing Sands Subjected to Air or Gas Drive or Water Flooding in Western Pennsylvania

SYSTEM	GROUP	GRAPHIC LOG	FORMATION	SECONDARY RECOVERY METHOD IN USE
PENNSYLVANIAN	CONEMAUGH		PITTSBURGH COAL	
			MURPHY SAND	
			AMES LIMESTONE	
			SALTSBURG SAND	
			LITTLE DUNKARD SAND	
			BIG DUNKARD SAND	
			UPPER FREEPORT COAL	
	ALLEGHENY		FIRST GAS SAND	
	POTTSVILLE		FIRST SALT SAND	
			SECOND SALT SAND	
			MAXTON SAND	
MISSISSIPPIAN	GR		GREENBRIER LIMESTONE	
			LOYALHANNA LIMESTONE	
	POCONO		BIG INJUN SAND	
			SQUAW SAND	
			CORRY, BEREA, SECOND GAS SANDS	A-G*
			MURRYSVILLE SAND	
DEVONIAN	CONEWANGO		HUNDRED FOOT, FIRST, AND GANTZ SANDS	A-G
			FIFTY FOOT, WHITE, AND ROSENBERRY SANDS	
			LYTLE AND RED VALLEY SANDS	A-G
			UPPER NINEVEH SAND	
			SECOND, THIRTY FOOT, AND LOWER NINEVEH SANDS	A-G, WF†
			SNEE AND GORDON STRAY SAND	
			BOULDER, KNOX THIRD, AND SHIRA SANDS	A-G
			KNOX FOURTH, THIRD STRAY, CLARION, GRAY, AND GORDON SANDS	A-G
			BYRAM, KNOX FIFTH, THIRD, AND FOURTH SANDS	A-G
			FIFTH SAND	A-G
	CONNEAUT		BAYARD SAND	
			ELIZABETH SAND	
			"PINK ROCK"	
	CANADAWAY		BRADFORD FIRST, QUEEN, AND GLADE SANDS	A-G
			WATSONVILLE SAND	
			CLARENDON, KINZUA, SUGAR RUN, AND DEWDROP SANDS	A-G, WF
			SPEECHLEY AND BALLTOWN SANDS	A-G
			CHERRY GROVE, GARTLAND, AND CHIPMUNK SANDS	A-G
			BRADFORD SECOND SAND	WF
			COOPER AND HARRISBURG RUN SANDS	A-G, WF
			KLONDIKE, DEERLICK, AND SLIVERVILLE SANDS	G‡
			BRADFORD THIRD SAND	WF
			LEWIS RUN SAND	
			UPPER KANE SAND	WF
			LOWER KANE SAND	
			SARTWELL SAND	WF
			HASKILL SAND	WF

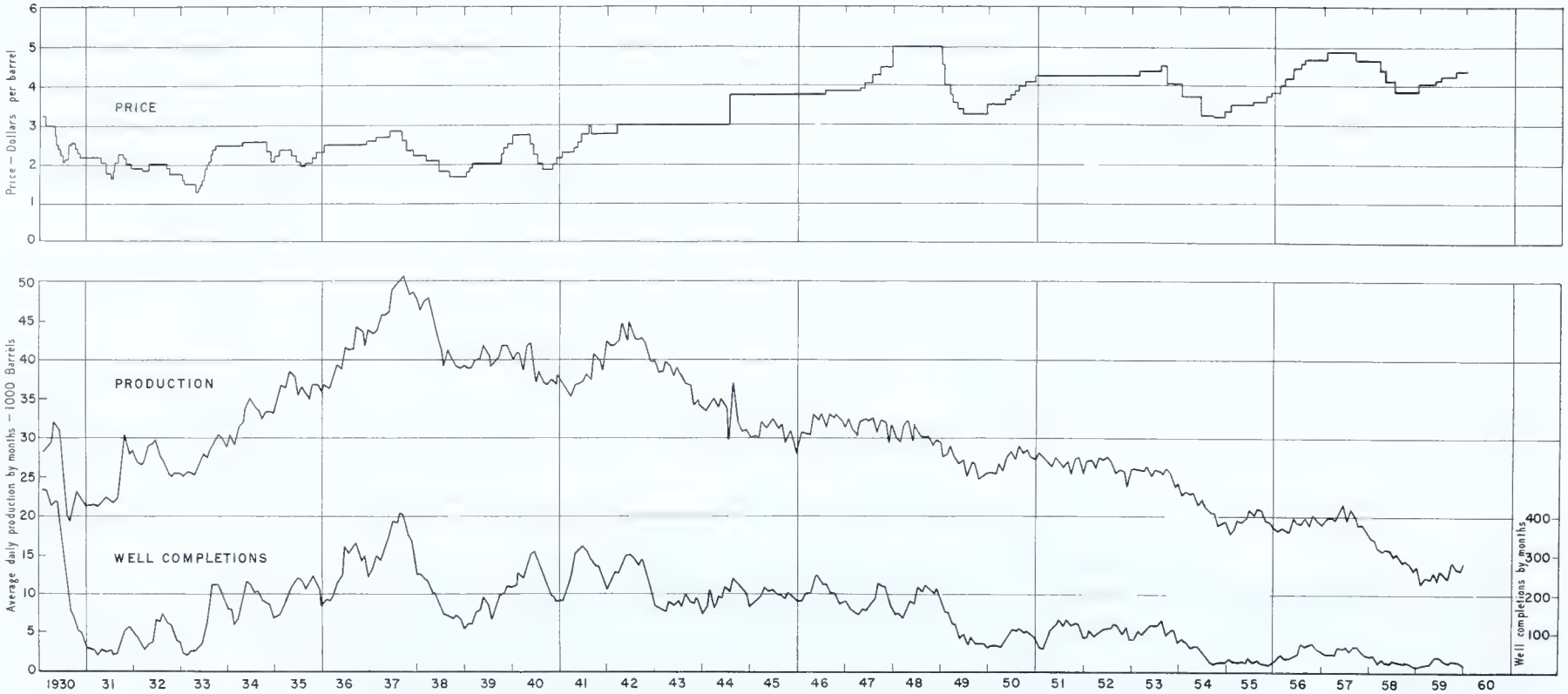
* AIR OR GAS DRIVE
† WATER FLOODING
‡ GAS DRIVE

Plate 10



ANNUAL PRODUCTION OF CRUDE OIL IN PENNSYLVANIA

Figure 3



CRUDE OIL PRICES, PRODUCTION AND WELL COMPLETIONS – BRADFORD FIELD

Figure 4

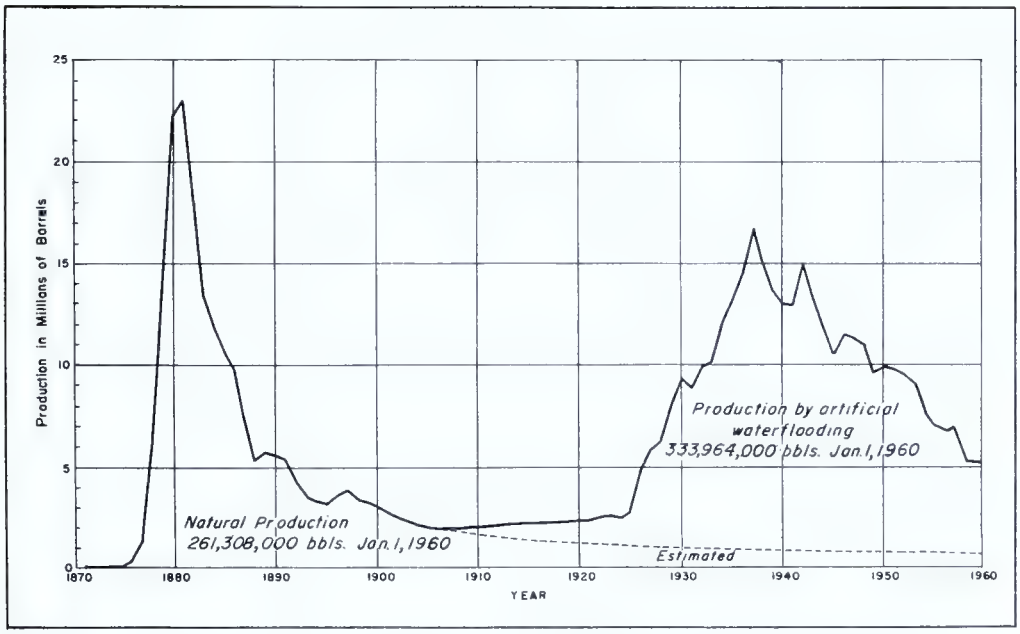


Fig. 5 Crude oil production curve of the Bradford district, Pa. & N.Y.
Music Mt. field excluded

TABLE 2. Deep and Shallow Well Completion Summary, Pennsylvania 1957-59

1957	*Oil*	*Gas*	*Dry*	*Total*	*Percent Successful*
Exploratory tests	0	8	25	33	24
Development wells*	48	325	83	456	82
Total	48	333	108	489	78

1958	*Oil*	*Gas*	*Dry*	*Total*	*Percent Successful*
Exploratory tests	1	17	22	40	45
Development wells*	25	317	66	408	84
Total	26	334	88	448	80

1959	*Oil*	*Gas*	*Dry*	*Total*	*Percent Successful*
Exploratory tests	—	7	17	24	29
Development wells*	10	297	70	337	81
Total	10	304	87	401	78

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE 3. Natural Gas Production in Pennsylvania By Counties: 1951 to 1955*
(in millions of cubic feet)

County	*1951*	*1952*	*1953*	*1954*	*1955*
Total for all Counties	167,343	141,204	141,851	177,165	142,985
Allegheny	13,086	11,718	7,876	3,235	3,970
Armstrong	11,571	10,934	11,506	10,538	9,916
Beaver	16,493	18,053	15,299	12,614	13,954
Butler	910	854	786	810	756
Cambria	—	—	—	—	9
Cameron	—	4,417	12,704	11,287	5,329
Clarion	12,506	12,025	11,160	10,321	10,733
Clearfield	206	188	219	803	1,478
Clinton	45,416	25,149	3,452	1,919	6,158
Elk	7,066	5,039	36,983	83,218	37,777
Erie	100	398	119	286	258
Fayette	2,915	2,572	2,511	2,621	2,459
Forest	945	973	696	514	626
Greene	9,619	8,234	5,796	5,368	4,967
Indiana	2,842	2,475	2,296	2,525	2,604
Jefferson	7,978	8,260	5,915	6,105	6,853
Lawrence	19	7	8	6	6
McKean	3,520	3,440	2,796	2,433	2,594
Mercer	4,123	4,201	7,068	6,626	7,413
Potter	12,386	8,362	2,983	2,623	12,450
Tioga	12	145	46	256	5
Venango	842	822	670	630	666
Warren	454	432	303	416	378
Washington	9,792	7,907	5,059	4,269	4,432
Westmoreland	4,542	4,599	5,600	7,742	7,194

* Production data from Bureau of Statistics, Department of Internal Affairs, Pennsylvania. No longer compiling this data.

TABLE 4. A Summary of Oil and Gas Production and Reserves, Pennsylvania, 1955-1959

	Production	*Cumultative total at year end*	*Reserves at year end*
	1955		
Oil (bbls.)	8,531,000*	1,195,809,000	142,376,000
Gas (MCF)	123,604,000**	6,851,493,000	754,389,000**
	1956		
Oil (bbls.)	8,230,000*	1,204,039,000	134,381,000
Gas (MCF)	118,416,000**	6,969,909,000	776,212,000**
	1957		
Oil (bbls.)	8,179,000*	1,212,218,000	126,202,000
Gas (MCF)	107,004,000**	7,076,913,000	853,595,000**
	1958		
Oil (bbls.)	6,472,000*	1,218,690,000	119,730,000
Gas (MCF)	104,974,000**	7,181,887,000	870,014,000**
	1959		
Oil (bbls.)	6,156,000*	1,224,846,000	113,574,000
Gas (MCF)	118,862,000**	7,300,749,000	1,051,972,000**

* Minerals Yearbook, Bureau of Mines, U. S. Dept. of Interior.
** American Gas Association.

TABLE 5. Summary of Deep Well Completions, Pennsylvania, 1956-59

1956

	Development	*Development*	*Wildcat*	*Wildcat*	*Storage*	*Storage*	*Total*
Gas	74		7		13		94
Dry		23		23		3	49
Footage	368,641	108,800	46,853	112,936	64,000	15,997	717,227

1957

Gas	118		3		2		123
Dry		32		17		1	50
Footage	851,597	216,423	16,123	105,738	8,627	4,775	1,203,283

1958

	Development	*Development*	*Development*	*Wildcat*	*Wildcat*	*Wildcat*	*Total*
Oil	1			1			2
Gas		67			9		76
Dry			25			17	42
Footage	3,853	492,896	171,208	3,886	55,287	100,513	827,643

1959

	Development	*Development*	*Wildcat*	*Wildcat*	*Total*
Gas	83		6		89
Dry		16		17	33
Footage	608,603	111,523	37,792	92,107	850,025

TABLE 6. Summary of Deep Drilling in Pennsylvania by Counties, 1955-59

County	Total Number Wells	Number Producers Gas	Number Producers Oil	Number Drilled for Gas Storage	Number Dry Holes	Deepest Formation Reached
Armstrong	1	1				Helderberg
Bedford	3	1			2	Oriskany
Blair	1				1	Juniata
Bradford	1				1	Salina
Butler	3				3	Queenston
Cameron	5	3			2	Helderberg
Centre	1				1	Oriskany
Clearfield	255	217			38	Salina
Clinton	13	7			6	Helderberg
Columbia	1				1	Tonoloway
Crawford	15	2	2		11	Precambrian
Elk	33	22			11	Queenston
Erie	114	64			50	Gatesburg
Fayette	3	2			1	Helderberg
Indiana	73	55			18	Helderberg
Jefferson	15	12			3	Helderberg
Juniata	1				1	Lower Wills Creek
Lackawanna	1				1	Helderberg ?
Lawrence	1				1	Salina ?
Luzerne	2				2	Rose Hill
Lycoming	1				1	Middle Devonian
McKean	4				4	Queenston
Mercer	3				3	Eau Claire
Northumberland	1				1	Keyser
Pike	2				2	Hamilton
Potter	58	20		26	12	Helderberg
Snyder	3				3	Rose Hill
Somerset	14	10			4	Helderberg
Sullivan	1				1	Helderberg ?
Susquehanna	3				3	Helderberg
Tioga	10			5	5	Helderberg
Union	1				1	Beekmantown
Warren	5				5	Gatesburg
Wayne	4				4	Bossardville
Westmoreland	21	14			7	Helderberg
Total	673*	430	2	31	210	

* The logs of 7 additional wells are published in Table 15, four of these wells were re-drilled during the 1955-59 report period and 3 wells were drilled prior to 1955, the logs had not been published previously.

TABLE 7. Classification of Deep Wells in Pennsylvania According to Deepest Formation Reached 1955-59

Age		Formation			Total No. of Wells Reaching At TD.—		Number Producers Gas	Number Drilled for Gas Storage	Number Producers Oil
Devonian	U	Genesee			1				
	M	Tully		1	1				
		Hamilton			14				
		Onondaga			28	299	18		
	L	Oriskany			242		109	31	
		Helderberg			317				
Silurian	U	Keyser-Bass Island			20				
		Bossardville-Tonoloway	Salina	10	3				
		Wills Creek			1				
		Vernon-Bloomsburg			1				
	M	McKenzie-Lockport							
		Rochester	Clinton	1					
		Keefer							
		Rose Hill			2				
	L	Grimsby	Medina		1		8		2
		Cabot Head			1				
		Whirlpool							
Ordovician	U	Juniata-Queenston			21				
		Oswego							
		Reedsville							
	M	"Trenton-Black River"							
		"Chazy"							
	L	Beekmantown			1				
Upper Cambrian		Gatesburg			5				
		Warrior-Eau Claire			1				
Precambrian					1				
		Sub Total		12	661	299	135	31	2
		Total			673		434	31	2

TABLE 9. Production and Other Data for Deep-Sand Gas Fields of Pennsylvania as of January 1, 1961

County	Field or Pool	Discovery date	Area Proved Acres	Total Gas Prod. to End of 1960 MCF	Status of Area or Pool at End of 1960	Yield Per Acre MCF	No. of Gas Wells	No. of Wells Drilled for Storage	No. of Dry Holes	Avg. I.O.F. Initial Wells MCF	Largest Well O.F. MCF	Initial Rock Pressure psi	Avg. Depth of Producing Formation	Name of Producing Formation	Character of Producing Formation
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Producing	[illegible]	1			[illegible]	[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Field	[illegible]	[illegible]	[illegible]	Abandoned	5,170	5	—	4	[illegible]	[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]														
[illegible]	[illegible] Field	[illegible]	[illegible]	[illegible]	Producing	4,010	560	—	13	[illegible]	70,000	4,?20	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	125	2,[illegible]	Producing	2,000	6		[illegible]	11	[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	2,2[illegible]	Producing	[illegible]	288		70	4,[illegible]	47,000	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]													
[illegible]	[illegible] Mt.	[illegible]	4,[illegible]	62,[illegible]0,000	Producing	6,[illegible]	30	—	[illegible]	[illegible]	16,[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	[illegible]				3[illegible]		8	13,147	31,272	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	12,?20		Producing		24		16	[illegible]	3,[illegible]	1,8[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	31,1[illegible]	88,[illegible]	Producing	1,[illegible]	167		30	[illegible]	[illegible]		[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	[illegible]		Producing		[illegible]		3	1,[illegible]	3[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Field	[illegible]	[illegible]	1,[illegible]	Part Storage	8,940	146		[illegible]	[illegible]	14,[illegible]	4,[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	4[illegible]	Producing	9,240	22		7	[illegible]	124,000	4,24[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]1,440,[illegible]	Storage 19[illegible]	20,7[illegible]0	[illegible]	—	1	[illegible]	[illegible]	1,7[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]52	4		Storage 19[illegible]		16		20	1,[illegible]	6[illegible],[illegible]	3,[illegible]	—	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Producing	1,480		—	3	2,[illegible]	[illegible]	4,4[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	1[illegible]	11,[illegible]	[illegible]	Storage 19[illegible]	8,540	100		55	7,[illegible]	14,[illegible]	4,[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible] Field	[illegible]		1[illegible]	Producing	1,800	[illegible]		1	1,[illegible]	6,200	1,122	3,260	Medina	Sandstone
[illegible]	[illegible] Spring	[illegible]	100	162,500	Producing	1,800	2	—	—	3,558	6,200	1,122	3,560	Medina	Sandstone
[illegible]	[illegible]	[illegible]	50				3	—	1	1[illegible]	510	[illegible]	[illegible]	Medina	Sandstone
[illegible]	[illegible]	4[illegible]	[illegible]	[illegible]	Storage [illegible]	2,[illegible]	12	[illegible]	7	[illegible]	2,2[illegible]	1,2[illegible]	4[illegible]	Medina	Sandstone
[illegible]	[illegible] Dam	[illegible]	[illegible]	1[illegible]	Producing	1,4[illegible]	2	[illegible]	2	[illegible]	40[illegible]	[illegible]	4,[illegible]	Medina	Sandstone
[illegible]	[illegible] Field	[illegible]	[illegible]	4[illegible]	Storage 19[illegible]	[illegible]	[illegible]3	—	[illegible]	[illegible]	[illegible],000	[illegible]	2,[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]00	Shut in	100	1		3	1[illegible]	1[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible] Field	[illegible]	1[illegible]	[illegible]	Producing	2[illegible]	[illegible]	—	1[illegible]	3,44[illegible]	5,[illegible]	[illegible]2	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	North [illegible]	[illegible]	[illegible]	1[illegible]	Producing	22,8[illegible]	14		[illegible]	2,[illegible]	1[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]42	[illegible]	1[illegible]	Producing	1[illegible]	13		19	4,[illegible]	[illegible]		[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Field	[illegible]	[illegible]	14[illegible]	Producing	8,[illegible]0	33		8	[illegible]	9,[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Producing	2,310	17		7	[illegible]	[illegible]	4,[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Center	[illegible]	[illegible]		Producing		6		[illegible]	4,1[illegible]	[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	76,[illegible],000	Producing	22,000	36	—	8	21,885	38,000	2,125	5,164	Oriskany	Sandstone
[illegible]	West [illegible]	[illegible]	230		Producing		5	—	3	4,460	6,500	1,540	5,005	Oriskany	Sandstone
[illegible]	East Fork [illegible] Field	[illegible]	6,500	32,350,000	Producing	4,980	40	—	10	2,800	11,140	3,600	6,030	Oriskany	Sandstone
[illegible]	[illegible] partly in New York	[illegible]	8,200	33,374,000	Storage 1953	4,070	30	31	9	7,150	22,500	2,160	5,020	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	3,800	44,059,000	Storage 1953	11,595	35	21	6	14,200	65,470	2,175	5,005	Oriskany	Sandstone
[illegible]	[illegible]	12[illegible]	1[illegible]	11,[illegible]	Storage 1948	8,8[illegible]	15		15	1[illegible]	[illegible]	1,[illegible]	4,[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	1,4[illegible]	Producing	2,800	4	—	6	[illegible]	[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible],000	Shut in	3,12[illegible]	2		5	[illegible]	1,[illegible]	[illegible]	[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Producing	1,[illegible]	7		2	[illegible]	[illegible]	[illegible]	[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] partly in New York	[illegible]	500	600,000	Shut in	1,200	4	—	3	914	2,000	2,090	5,050	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	7,000	32,680,000	Storage 1951	4,670	22	12	3	13,100	4[illegible],000	2,125	4,410	Oriskany	Sandstone
[illegible]	[illegible] Field	[illegible]	[illegible]	37[illegible],000	Storage	5,240	48	1[illegible]	26	1[illegible],310	7[illegible]	1,[illegible]75	4,[illegible]	Oriskany	Sandstone
[illegible]	[illegible] Tioga (Brown)	[illegible]	4[illegible]		Storage 1949		27	11	18	16,[illegible]	33,000	[illegible]	5,[illegible]	Oriskany	Sandstone
[illegible]	[illegible]	[illegible]	42	37,213,000	Storage 19[illegible]	5,240	5		4	35,456	73,000	1,[illegible]0	4,123	Oriskany	Sandstone
[illegible]	West Tioga (Palmer)	[illegible]	[illegible]		Storage 193[illegible]		16	—	4	1[illegible]	4[illegible],000	1,[illegible]	4,101	Oriskany	Sandstone
[illegible]	[illegible] Field	[illegible]	1,[illegible]	4,[illegible]	Producing	3,740	11	—	4	4,8[illegible]	11,[illegible]	4,100	7,4[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	12[illegible]	1[illegible]	[illegible],500	Producing	85	1	[illegible]	[illegible]	1,087	1,187	3,250	7,7[illegible]	Onondaga	Chert
[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	Producing	6,110	1	—	1	243	245	3,875	8,[illegible]	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Chapel	[illegible]	[illegible]	3,4[illegible]	Producing	3,[illegible]	9		3	5,820	11,365	4,100	7,4[illegible]0	Onondaga	Chert
[illegible]	[illegible]														
[illegible]	[illegible] Field	12[illegible]	750	1,956,000	Producing	2,610	5	—	4	7,243	10,933	3,400	7,858	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	12[illegible]	[illegible]	1,779,400	Producing	2,740	4	—	2	6,320	9,910	3,400	7,695	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible] Field	[illegible]	1[illegible]	176,600	Producing	1,770	1	—	2	10,933	10,933	3,400	8,460	Onondaga	Chert
[illegible]	[illegible]	[illegible]	1,[illegible]	5,7[illegible],000	Producing	3,420	5	—	5	7,905	16,025	3,660	7,908	Onondaga-Oriskany	Chert & Sandstone
[illegible]	[illegible]	5[illegible]57	1,[illegible]	1,311,000	Producing	1,310	1	—	3	6,685	6,685	2,815	7,454	Onondaga	Chert
[illegible]	[illegible]	2[illegible]	[illegible]	4,477,000	Producing	6,490	4	—	2	8,210	16,025	3,660	8,022	Onondaga-Oriskany	Chert & Sandstone

TABLE 10, SHEET 1. Shallow-Sand Well Completions in Pennsylvania in 1955*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	Aver. Total Depth (feet)	No. of Wells	Aver. Init. Open-flow (MCF PD)	Aver. Total Depth (feet)	No. of Wells	Aver. Init. Production (BPD)	Aver. Total Depth (feet)	No. of Wells	Aver. Total Depth (feet)
Allegheny	12	2,906	7	85	2,880	0	—	—	5	2,942
Armstrong	63	3,074	61	288	3,102	0	—	—	2	2,233
Butler	24	2,097	12	25	2,287	6	1.5	1,416	6	2,400
Clarion	10	2,537	10	116	2,537	0	—	—	0	—
Clearfield	2	2,553	1	50	3,605	0	—	—	1	1,500
Crawford	1	2,003	0	—	—	0	—	—	1	2,003
Elk	9	1,656	3	72	1,811	0	—	—	6	1,579
Fayette	2	2,647	1	12	2,678	0	—	—	1	2,615
Forest	24	1,238	9	113	1,545	7	4	711	8	1,179
Greene	5	2,066	2	135	2,187	1	2	747	2	2,604
Indiana	32	3,030	24	374	2,908	1	5	1,348	7	3,690
Jefferson	44	2,999	33	200	3,050	0	—	—	11	2,844
Lycoming	1	4,130	0	—	—	0	—	—	1	4,130
McKean	14	2,319	7	49	2,184	0	—	—	7	2,454
Mercer	6	690	5	112	700	1	1	639	0	—
Potter	6	822	5	309	683	0	—	—	1	1,515
Venango	1	908	1	38	908	0	—	—	0	—
Washington	14	2,289	5	225	1,835	1	35	2,757	8	2,515
Westmoreland	39	3,307	28	477	3,182	0	—	—	11	3,624
Total	309	2,615	214	204	2,729	17	4.7	1,198	78	2,612

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE 10, SHEET 2. Shallow-Sand Well Completions in Pennsylvania in 1956*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Open-flow (MCF PD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Production (BPD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Total Depth (feet)*
Allegheny	6	2,799	5	255	2,718	—	—	—	1	3,200
Armstrong	78	3,174	78	727	3,174	—	—	—	—	—
Butler	6	1,629	2	292	1,107	1	3	1,220	3	2,113
Clarion	16	2,554	12	315	2,498	—	—	—	4	2,720
Clearfield	2	2,969	—	—	—	—	—	—	2	2,969
Elk	1	2,605	—	—	—	1	3	2,605	—	—
Erie	1	1,723	—	—	—	—	—	—	1	1,723
Fayette	5	2,685	1	231	1,530	—	—	—	4	2,974
Forest	16	1,196	2	30	1,945	9	2.2	908	5	1,417
Greene	2	3,088	—	—	—	—	—	—	2	3,088
Indiana	23	3,143	17	443	3,035	—	—	—	6	3,447
Jefferson	43	3,069	37	384	3,025	—	—	—	6	3,337
McKean	14	2,090	5	21	2,223	8	3.5	1,933	1	2,677
Potter	2	1,777	—	—	—	—	—	—	2	1,777
Washington	9	2,830	4	243	2,938	—	—	—	5	2,750
Westmoreland	27	3,157	22	422	3,194	—	—	—	5	2,998
Total	251	2,836	185	470	2,002	19	2.8	1,445	47	2,743

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE 10, SHEET 3. Shallow-Sand Well Completions in Pennsylvania in 1957*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Open-flow (MCF PD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Production (BPD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Total Depth (feet)*
Allegheny	3	3,540	2	10	3,583	—	—	—	1	3,456
Armstrong	85	3,016	82	750	3,004	—	—	—	3	3,356
Beaver	2	1,247	1	50	1,260	1	.25	1,234	—	—
Blair	1	1,700	—	—	—	—	—	—	1	1,700
Butler	5	2,023	3	79	1,672	1	3	1,400	1	3,700
Clarion	16	2,132	9	430	2,489	5	1	1,128	2	3,033
Clearfield	9	1,759	1	3,033	2,394	—	—	—	8	1,679
Elk	2	2,328	2	1,273	2,328	—	—	—	—	—
Forest	29	1,282	7	76	1,615	10	2	884	12	1,418
Greene	3	2,241	—	—	—	—	—	—	3	2,241
Indiana	38	3,164	30	612	3,046	—	—	—	8	3,609
Jefferson	35	3,057	33	554	3,064	—	—	—	2	2,936
Juniata	1	2,253	—	—	—	—	—	—	1	2,253
Lackawanna	7	3,265	5	813	3,173	—	—	—	2	3,494
Luzerne	3	2,930	—	—	—	—	—	—	3	2,930
Lycoming	1	820	—	—	—	—	—	—	1	820
McKean	3	1,500	2	13	1,756	1	.6	988	—	—
Potter	5	1,748	3	10	1,733	—	—	—	2	1,770
Venango	13	782	1	10	700	10	1	790	2	788
Warren	23	718	3	75	908	20	7	690	—	—
Washington	7	2,563	4	241	2,701	—	—	—	3	2,380
Westmoreland	28	3,547	22	1,119	3,705	—	—	—	6	2,970
Total	319	2,505	210	656	2,907	48	3.7	829	61	2,391

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE 10, SHEET 4. Shallow-Sand Well Completions in Pennsylvania in 1958*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Open-flow (MCF PD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Production (BPD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Total Depth (feet)*
Allegheny	1	3,550	1	36	3,550	—	—	—	—	—
Armstrong	124	3,062	119	600	3,151	—	—	—	5	2,934
Butler	2	2,784	1	10	3,642	—	—	—	1	1,925
Clarion	28	2,563	22	352	2,501	—	—	—	6	2,791
Clearfield	2	1,760	—	—	—	—	—	—	2	1,760
Elk	12	2,374	9	972	2,401	—	—	—	3	2,292
Fayette	2	1,619	1	75	2,098	—	—	—	1	1,140
Forest	19	1,178	4	46	2,022	7	2.7	742	8	1,138
Greene	1	1,857	—	—	—	—	—	—	1	1,857
Indiana	44	3,264	37	536	3,230	—	—	—	7	3,444
Jefferson	38	3,003	33	473	3,018	1	2	1,904	4	3,151
Lackawanna	2	3,863	2	57	3,864	—	—	—	—	—
McKean	4	1,555	—	—	—	3	2	1,714	1	1,078
Potter	4	2,027	4	17	2,024	—	—	—	—	—
Tioga	2	1,401	—	—	—	—	—	—	2	1,401
Venango	9	885	—	—	—	6	.5	960	3	735
Warren	7	893	—	—	—	7	6.2	894	—	—
Washington	2	2,780	2	505	2,781	—	—	—	—	—
Westmoreland	24	3,059	23	741	3,041	—	—	—	1	3,477
Wyoming	1	3,966	—	—	—	—	—	—	1	3,966
Total	328	2,774	258	550	3,021	24	2.9	1,011	46	2,306

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE 10, SHEET 5. Shallow-Sand Well Completions in Pennsylvania in 1959*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Open-flow (MCF PD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Init. Production (BPD)*	*Aver. Total Depth (feet)*	*No. of Wells*	*Aver. Total Depth (feet)*
Armstrong	91	3,161	86	619	3,148	—	—	—	5	3,385
Beaver	1	1,640	—	—	—	—	—	—	1	1,640
Butler	2	2,056	1	762	1,591	—	—	—	1	2,520
Clarion	32	2,495	28	294	2,558	—	—	—	4	2,050
Clearfield	2	1,749	2	24,000	1,749	—	—	—	—	—
Clinton	2	1,264	1	286	1,240	—	—	—	1	1,287
Elk	13	2,179	12	150	2,171	—	—	—	1	2,268
Fayette	3	3,155	2	75	2,917	—	—	—	1	3,633
Forest	16	1,448	8	34	1,704	3	1.5	1,015	5	1,299
Greene	1	3,012	—	—	—	—	—	—	1	3,012
Indiana	22	3,324	17	468	3,507	—	—	—	5	2,701
Jefferson	34	3,071	26	391	3,085	—	—	—	8	3,023
Lackawanna	1	5,532	—	—	—	—	—	—	1	5,532
McKean	4	1,994	3	20	2,165	—	—	—	1	1,480
Mercer	1	764	—	—	—	—	—	—	1	764
Potter	1	2,010	1	25	2,010	—	—	—	—	—
Tioga	1	1,500	1	50	1,500	—	—	—	—	—
Venango	4	857	—	—	—	3	2.7	981	1	485
Warren	4	746	—	—	—	4	10.8	746	—	—
Washington	8	2,257	2	72	2,533	—	—	—	6	2,165
Westmoreland	36	3,362	25	869	3,283	—	—	—	11	3,543
Total	279	2,810	215	711	2,936	10	5.6	897	54	2,665

* Does not include wells drilled in connection with underground gas storage or secondary-recovery oil operations.

TABLE II, SHEET 1. Shallow-Sand Wells Deepened in Pennsylvania in 1955

County	TOTAL		GAS			DRY	
	No. of Wells	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Open-flow (MCF PD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Amount Deepened (feet)
Allegheny	2	270	2	161	270	0	—
Armstrong	10	1,495	10	224	1,495	0	—
Butler	1	407	1	20	407	0	—
Fayette	1	2,000	1	65	2,000	0	—
Greene	2	1,460	1	47	900	1	2,020
Jefferson	4	1,903	2	291	2,039	2	1,767
Washington	1	810	1	450	810	0	—
Total	21	1,392	18	207	1,316	3	1,851

TABLE 11, SHEET 2. Shallow-Sand Wells Deepened in Pennsylvania in 1956*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Open-flow (MCF PD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Production (BPD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Amount Deepened (feet)
Allegheny	1	243	—	—	—	1	.5	243	—	—
Armstrong	6	1,689	6	496	1,689	—	—	—	—	—
Greene	3	258	1	22	570	—	—	—	2	102
Indiana	2	1,301	2	165	1,301	—	—	—	—	—
Jefferson	5	563	5	50	563	—	—	—	—	—
Washington	3	1,006	—	—	—	2	36	480	1	2,058
Westmoreland	2	801	2	1,663	801	—	—	—	—	—
Total	22	963	16	428	1,108	3	23.8	401	3	754

* Does not include wells deepened in connection with underground gas storage or secondary-recovery oil operations.

TABLE 11, SHEET 3. Shallow-Sand Wells Deepened in Pennsylvania in 1957*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Open-flow (MCF PD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Production (BPD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Amount Deepened (feet)
Armstrong	8	1,169	6	434	1,121	—	—	—	2	1,306
Cameron	1	2,045	—	—	—	—	—	—	1	2,045
Total	9	1,267	6	434	1,121	—	—	—	3	1,551

* Does not include wells deepened in connection with underground gas storage or secondary-recovery oil operations.

TABLE 11, SHEET 4. Shallow-Sand Wells Deepened in Pennsylvania in 1958*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Open-flow (MCF PD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Init. Production (BPD)	Aver. Amount Deepened (feet)	No. of Wells	Aver. Amount Deepened (feet)
Allegheny	2	932	—	—	—	1	4	556	1	1,308
Armstrong	9	1,638	9	562	1,638	—	—	—	—	—
Forest	3	532	3	27	532	—	—	—	—	—
Greene	2	750	2	42	750	—	—	—	—	—
Indiana	3	867	3	363	867	—	—	—	—	—
Jefferson	1	500	1	16	500	—	—	—	—	—
Lackawanna	1	452	1	52	452	—	—	—	—	—
Total	21	1,108	19	336	1,126	1	4	556	1	1,308

* Does not include wells deepened in connection with underground gas storage or secondary-recovery oil operations.

TABLE 11, SHEET 5. Shallow-Sand Wells Deepened in Pennsylvania in 1959*

County	TOTAL		GAS			OIL			DRY	
	No. of Wells	*Aver. Amount Deepened (feet)*	*No. of Wells*	*Aver. Init. Open-flow (MCF PD)*	*Aver. Amount Deepened (feet)*	*No. of Wells*	*Aver. Init. Production (BPD)*	*Aver. Amount Deepened (feet)*	*No. of Wells*	*Aver. Amount Deepened (feet)*
Armstrong	11	947	9	415	1,068	—	—	—	2	404
Butler	1	153	—	—	—	—	—	—	1	153
Clarion	2	1,163	2	26	1,163	—	—	—	—	—
Indiana	5	1,908	5	950	1,908	—	—	—	—	—
Jefferson	2	1,929	2	905	1,929	—	—	—	—	—
Westmoreland	3	817	3	131	817	—	—	—	—	—
Total	24	1,198	21	512	1,323	—	—	—	3	320

* Does not include wells deepened in connection with underground gas storage or secondary-recovery oil operations.

TABLE 12, SHEET 1. Oil Wells and Crude Oil Production in Pennsylvania by Counties: 1954 to 1956*

County	1954		1955		1956	
	Number of producing oil wells	*Crude oil production (bbls.)*	*Number of producing oil wells*	*Crude oil production (bbls.)*	*Number of producing oil wells*	*Crude oil production (bbls.)*
Allegheny	594	129,834	481	134,890	470	127,616
Armstrong	235	14,711	201	15,471	201	14,937
Beaver	205	15,652	178	16,037	182	18,152
Butler	2,989	209,093	2,756	224,748	2,739	216,481
Clarion	1,526	55,318	1,357	58,752	1,304	54,096
Crawford	662	49,911	672	58,240	649	55,937
Elk	658	27,776	705	32,346	705	32,139
Fayette	7	584	5	436	5	419
Forest	1,115	115,793	1,089	161,838	1,077	158,404
Greene	362	63,676	356	61,884	345	65,164
Indiana	—	—	1	315	1	—
Jefferson	103	5,322	103	4,965	103	4,490
McKean	34,278	7,245,827	32,553	7,090,225	31,262	6,680,366
Mercer	242	5,647	237	5,294	237	4,818
Potter	250	117,598	215	81,100	418	116,662
Tioga	16	2,144	16	2,353	16	1,696
Venango	19,188	870,531	19,569	676,460	19,404	630,119
Warren	9,403	468,338	9,283	440,572	9,301	377,718
Washington	1,029	210,514	933	187,092	927	192,584
Total	72,862	9,608,269	70,710	9,253,018	69,346	8,751,798

* Data from Bureau of Statistics, Department of Internal Affairs, Pennsylvania.

TABLE 12, SHEET 2. Oil Wells and Crude Oil Production in Pennsylvania by Counties: 1957 to 1959*

County	*1957 (revised)*		*1958*		*1959*	
	Number of producing oil wells	*Crude oil production (bbls.)*	*Number of producing oil wells*	*Crude oil production (bbls.)*	*Number of producing oil wells*	*Crude oil production (bbls.)*
Allegheny	458	113,475	450	131,930	415	128,783
Armstrong	197	13,810	197	13,224	177	12,961
Beaver	182	15,966	175	13,534	150	11,116
Butler	2,689	183,130	2,638	173,107	2,611	172,090
Clarion	1,248	53,041	1,209	53,109	1,025	52,880
Crawford	618	30,366	618	34,646	618	29,391
Elk	705	28,664	705	26,425	677	25,632
Fayette	4	393	4	226	5	277
Forest	1,059	42,126	1,018	66,769	1,000	92,369
Greene	321	64,311	318	62,384	315	60,346
Indiana	1	—	1	—	1	—
Jefferson	94	3,939	91	3,488	91	4,183
McKean	31,021	6,507,229	30,267	4,894,723	29,323	4,344,379
Mercer	229	4,719	227	3,806	227	3,650
Potter	418	95,233	418	84,498	418	79,442
Tioga	16	1,074	16	1,197	16	1,532
Venango	18,732	509,142	18,394	451,555	17,945	422,177
Warren	9,256	239,930	8,421	290,583	8,465	274,452
Washington	903	185,538	887	180,261	861	180,160
Total	68,151	8,092,146	66,054	6,485,467	64,340	5,895,820

* Data from Bureau of Statistics, Department of Internal Affairs, Pennsylvania.

TABLE 13. Price Per Barrel of Crude Oil, Pennsylvania, 1955-59

Date	Northern or Bradford District	Middle or Venango District	Southwestern District
1955			
January 1	$3.35	$3.25	$2.93
January 21	3.50	3.37	3.08
July 11	3.60	3.47	3.18
November 1	3.75	3.62	3.33
December 1	3.85	3.72	3.43
1956			
February 6	$4.00	$3.87	$3.58
March 16	4.20	4.07	3.78
May 16	4.45	4.32	4.03
July 16	4.57	4.44	4.15
August 16	4.68	4.50	4.21
1957			
January 16	$4.88	$4.70	$4.41
July 26	4.65	4.47	4.18
1958			
March 1	$4.40	$4.22	$3.93
April 15	4.15	3.97	Apr. 16 3.68
June 16	3.90	3.72	June 18 3.43
December 22	4.05	3.87	Dec. 23 3.58
1959			
April 1	$4.15	$3.97	$3.70
May 1	4.25	4.07	3.80
September 12	4.40	4.22	3.95

TABLE 14-A. Summary of County Oil Reserves as of January 1, 1960 for Pennsylvania

County	*Acres*	*Total oil in place (bbls.)*	*Proved Recoverable by primary plus secondary methods (bbls.)*	*Probably Recoverable by secondary methods (bbls.)*	*Possibly Recoverable by secondary methods (bbls.)*
Allegheny	44,722	77,475,000	1,995,000	15,134,000	23,182,000
Armstrong	11,432	31,388,000	596,000	7,701,000	7,701,000
Beaver	13,407	27,673,000	346,000	4,804,000	5,207,000
Butler	103,026	280,343,000	12,346,000	49,405,000	89,115,000
Clarion	22,910	76,155,000	6,475,000	14,155,000	37,192,000
Crawford	8,360	53,747,000	3,248,000	7,421,000	19,661,000
Elk	6,160	25,887,000	467,000	1,871,000	2,167,000
Fayette	18	24,000	3,000	5,000	8,000
Forest	16,797	63,941,000	4,737,000	11,018,000	29,320,000
Greene	13,261	19,519,000	562,000	3,871,000	4,183,000
Jefferson	1,534	3,114,000	85,000	444,000	1,206,000
Lawrence	8,350	16,700,000	100,000	1,000,000	1,000,000
McKean	101,775	789,848,000	55,095,000	86,067,000	126,067,000
Mercer	4,500	7,044,000	394,000	904,000	2,434,000
Potter	4,420	30,135,000	2,015,000	3,915,000	5,515,000
Tioga	450	2,160,000	5,000	15,000	25,000
Venango	155,819	721,883,000	48,368,000	109,666,000	284,727,000
Warren	63,777	290,273,000	23,896,000	45,663,000	81,679,000
Washington	45,013	85,741,000	4,785,000	17,048,000	36,586,000
Total	625,731	2,603,050,000	165,554,000	380,107,000	756,975,000

TABLE 14-B. Summary of annual discoveries and reserves of crude oil
State of Pennsylvania
(Thousands of Barrels)

(1) Year	(2) Estimated Discoveries During Year	(3) Cumulative Discoveries at Year End	(4) Production During Year	(5) Cumulative Production at Year End	(6) Change in Reserves During Year	(7) Reserves at Year End
Total through 12/31/1919	—	1,328,201	—	752,264	—	575,937
1920	—	1,328,201	7,438	759,702	–7,438	568,499
1921	—	1,328,201	7,418	767,120	–7,418	561,081
1922	—	1,328,201	7,425	774,545	–7,425	553,656
1923	—	1,328,201	7,609	782,154	–7,609	546,047
1924	—	1,328,201	7,486	789,640	–7,486	538,561
1925	205	1,328,406	8,097	797,737	–7,892	530,669
1926	420	1,328,826	8,961	806,698	–8,541	522,128
1927	—	1,328,826	9,526	816,224	–9,526	512,602
1928	—	1,328,826	9,956	826,180	–9,956	502,646
1929	1,000	1,329,826	11,820	838,000	–10,820	491,826
1930	15	1,329,841	12,803	850,803	–12,788	479,038
1931	—	1,329,841	11,892	862,695	–11,892	467,146
1932	—	1,329,841	12,412	875,107	–12,412	454,734
1933	—	1,329,841	12,624	887,731	–12,624	442,110
1934	—	1,329,841	14,478	902,209	–14,478	427,632
1935	—	1,329,841	15,810	918,019	–15,810	411,822
1936	14	1,329,855	17,070	935,089	–17,056	394,766
1937	6,730	1,336,585	19,189	954,278	–12,459	382,307
1938	—	1,336,585	17,426	971,704	–17,426	364,881
1939	—	1,336,585	17,382	989,086	–17,382	347,499
1940	—	1,336,585	17,353	1,006,439	–17,353	330,146
1941	—	1,336,585	16,750	1,023,189	–16,750	313,396
1942	—	1,336,585	17,779	1,040,968	–17,779	295,617
1943	—	1,336,585	15,757	1,056,725	–15,757	279,860
1944	—	1,336,585	14,118	1,070,843	–14,118	265,742
1945	1,600	1,338,185	12,515	1,083,358	–10,915	254,827
1946	—	1,338,185	12,996	1,096,354	–12,996	241,831
1947	—	1,338,185	12,690	1,109,044	–12,690	229,141
1948	—	1,338,185	12,667	1,121,711	–12,667	216,474
1949	—	1,338,185	11,374	1,133,085	–11,374	205,100
1950	—	1,338,185	11,859	1,144,944	–11,859	193,241
1951	—	1,338,185	11,345	1,156,289	–11,345	181,896
1952	—	1,338,185	11,233	1,167,522	–11,233	170,663
1953	—	1,338,185	10,649	1,178,171	–10,649	160,014
1954	—	1,338,185	9,107	1,187,278	–9,107	150,907
1955	—	1,338,185	8,531	1,195,809	–8,531	142,376
1956	235	1,338,420	8,230	1,204,039	–7,995	134,381
1957	—	1,338,420	8,179	1,212,218	–8,179	126,202
1958	—	1,338,420	6,472	1,218,690	–6,472	119,730
1959	—	1,338,420	6,156	1,224,846	–6,156	113,574

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1955-1959

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Thompson, Jas. #1	27
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Will #1 (Vinapol)	40
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Williams, C. E. #3	71
Williams, Jas. F. #1	65
Wingert, Chas. #1	9
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TABLE 15
SHEET 1

	ALLEGHENY COUNTY			ARMSTRONG COUNTY			BEDFORD COUNTY			
QUADRANGLE	New Kensington			Elders Ridge			Clearville	Clearville	Clearville	
QUADRANGLE NUMBER	2			35			2	3	4	
NAME OF WELL	Christian Z. Shove 1			Margaret Rupert 1			Ruie C. Rice 1	D.H. Miller 2	Aaron Morris 1	
OPERATOR	South Penn Oil Co.			Columbian Carbon Co.			John T. Galey and NYSNG Corp	NYSNG Corp (N-550)	NYSNG Corp (N-658)	
TOWNSHIP	Hampton			South Bend			Monroe	Monroe	Monroe	
LATITUDE	1800 ft. N. 40° 35'			600 ft. S. 40° 40'			3200 ft. N. 39° 50'	4400 ft. N 39° 50'	5100 ft. N. 39° 50'	
LONGITUDE	1740 ft. W. 79° 55'			2600 ft. E. 79° 25'			2500 ft. W. 78° 20'	3700 ft. W. 78° 20'	5500 ft. W 78° 20'	
DATE COMPLETED	8 - 38			11 - 14 - 58			1 - 27 - 56	12 - 14 - 57	9 - 19 - 59	
ELEVATION	1218			1107			954	985	1017	
TULLY	5938 - 6042?			6420 -			3595 -			
ONONDAGA				6935 - Chert, 6962 -			5160 -	4610 -		
ORISKANY				7102 -			5264 -	4760 - Gas at 4834, 4859 & 4867		
HELDERBERG										
TOTAL DEPTH	6235			7176			5334	4893	5160	
DEEPEST FORMATION REACHED	Hamilton			Helderberg			Oriskany	Oriskany	Hamilton	
RESULT	Dry Upper Kittanning cool, 345-348 cool {459-463, 612-614 Big Injun, 810-1036 Berea, 1400-1490 Not previously published			3450 Mcf gas AF from chert and Oriskany R.P. 3850 psi 13 days Discovery Well Rupert Pool			Salt water in Oriskany Abandoned	1427 Mcf gas AF R.P. 1920 psi 4 days Discovery Well Purcell Field	Dry Oolites, 2380-2392 2697-2702 Faulted Did not reach Onondaga	

NYSNG Corp — New York State Natural Gas Corp.

TABLE 15
SHEET 2

BLAIR COUNTY

QUADRANGLE	Hollidaysburg
QUADRANGLE NUMBER	1
NAME OF WELL	Edward Bigley 1
OPERATOR	Hollidaysburg Gas Co
TOWNSHIP	Allegheny
LATITUDE	9800 ft. N. 40° 25'
LONGITUDE	2700 ft. E 78° 25'
DATE COMPLETED	9 - 13 - 57
ELEVATION	1145
ROSE HILL	
TUSCARORA	907-
JUNIATA	1481-
TOTAL DEPTH	1568
DEEPEST FORMATION REACHED	Juniata
RESULT	Spudded in Clinton Dry Abandoned

AF - after fracturing
BF - before fracturing

BRADFORD COUNTY

QUADRANGLE	Sayre
QUADRANGLE NUMBER	5
NAME OF WELL	Anna Carver 1
OPERATOR	Parsons Brothers
TOWNSHIP	Ridgebury
LATITUDE	6000 ft. S 42° 00'
LONGITUDE	2650 ft. W 76° 40'
DATE COMPLETED	8 - 13 - 56
ELEVATION	1350
TULLY	2864- 2980
ONONDAGA	4220 - 4317
ORISKANY	4317 - 4382
HELDERBERG	4382 - 4595
KEYSER	4595 - 4840
SALINA	4840 -
TOTAL DEPTH	7220
DEEPEST FORMATION REACHED	Salina
RESULT	Dry

BUTLER COUNTY

QUADRANGLE	Foxburg	Zelienople	Zelienople
QUADRANGLE NUMBER	1	7	8
NAME OF WELL	J.S. Walker 1	Griffin Bros 1	J. R. Davis 1
OPERATOR	J.C. Walker et al	T.W. Phillips Gas & Oil Co	T.W. Phillips Gas & Oil Co
TOWNSHIP	Bruin Boro	Franklin	Franklin
LATITUDE	16,000 ft. N 41° 00'	9100 ft. S 40° 55'	10,400 ft. S 40° 55'
LONGITUDE	7700 ft. E. 79° 45'	10,400 ft. E 80° 05'	10,500 ft. E 80° 05'
DATE COMPLETED	9 - 14 - 55	6 - 11 - 59	12 - 12 - 59
ELEVATION	1120	1287	1315
TULLY	5090 - 5176	5190 -	
ONONDAGA	5370 - 5468	5415- Chert, 5462-	5452- Chert, 5472-
ORISKANY	Horizon 5468	5539- 1 Mcf gas, BF at 5539	5582 - 5611 2 Mcf gas 5582-84 5 qts SW 2 hrs
HELDERBERG	5468 - 5560		
BASS ISLAND	5560 - 5675		
SALINA	5675 - 6684		
LOCKPORT	6684 - 6952		
CLINTON	6952 - 7220		
MEDINA	7220 - 7447		
QUEENSTON	7447-		
TOTAL DEPTH	7620	5561	5614
DEEPEST FORMATION REACHED	Queenston	Oriskany	Helderberg
RESULT	Dry	83 Mcf gas, AF RP, BF, 750 psi 29 hrs Too much SW Abandoned	550 Mcf gas, AF RP 950 psi 19 hrs Too much SW Abandoned

TABLE 15
SHEET 3

CAMERON COUNTY

QUADRANGLE	Benezette	Benezette	Driftwood	Driftwood	Driftwood		Bellefonte			
QUADRANGLE NUMBER	266	269	10	95	106		1			
NAME OF WELL	The Sylvania Corp. 1	A. Pardee Estate 2	A. Pardee Estate 1	New Bethlehem Rod & Gun Club 1	Pa. Tract 25 3		Pa. Game Lands 1			
OPERATOR	Fairman Drilling Co.	Godfrey L. Cabot, Inc.	Godfrey L. Cabot, Inc.	Wray Drilling Co.	M L & H Co.		Clearfield Development Co.			
TOWNSHIP	Gibson	Shippen	Gibson	Gibson	Gibson.		Union			
LATITUDE	10,300 ft. S 41° 25'	3300 ft. S 41° 25'	5700 ft. S 41° 25'	10,700 ft. N. 41° 20'	1450 ft. S. 41° 20'		8700 ft. S 41° 00'			
LONGITUDE	350 ft. W 78° 15'	3200 ft. W. 78° 15'	400 ft. E 78° 15'	4850 ft. E 78° 15'	4900 ft. E 78° 15'		3700 ft. E. 77° 55'			
DATE COMPLETED	3 - 1 - 57	3 - 27 - 58	Re-activated 1 - 9 - 58	1 - 24 - 55	6 - 25 - 55		6 - 1 - 56			
ELEVATION	1708	1503	1616	919	2009		1232			
TULLY	6125 -	6059 - 6156	6105 - 6202	5351 -	6310 -		5800 -			
ONONDAGA	6750 -	6673 - 6694	6719 - 6751	6058 -	7021 - 7061		6839 - 40 Mcf gas at 6863			
ORISKANY	6774 - 100 Mcf gas	6694 - 6726 SSG & SW	6751 - 6787 SG	6103 - 6133 SSW at 6112	7061 - Gas at 7064		6880 -			
HELDERBERG										
TOTAL DEPTH	6808	6736	6789	6135	7080		6885			
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Helderberg	Helderberg	Oriskany		Oriskany			
RESULT	264 Mcf gas AF RP 3250 psi	35 Mcf gas 1 bbl salt water in lower part Oriskany Abandoned	Former TD 6794 670 Mcf gas AF RP 3400 psi 7 days	One gallon salt water in 12 hrs. Abandoned	I.O.F. 1729 Mcf gas from Oriskany R.P. 1460 psi 24 hrs.		Show of gas in Onondaga Abandoned			

TABLE 15
SHEET 4

CLEARFIELD COUNTY

QUADRANGLE	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfiel
QUADRANGLE NUMBER	23	24	25	26	28	29	30	31	32	33
NAME OF WELL	Pa. Tract 32 4	Polumbo 1 (New Shawmut Mining Co. 1)	Pa. Tract 39 3	Pa. Tract 52 1	Pa. Tract 42 2	Pa. Tract 40 1	Pa. Tract 32 5	Pa. Tract 42 1	Pa. Tract 40 2	Pa. Tract 6 1
OPERATOR	NYSNG Corp (N439)	Devonian Gas & Oil Co.	C. J. Simpson	NYSNG Corp (N464)	Parsons Brothers	ML & H Co.	NYSNG Corp (N527)	Parsons Brothers	ML & H Co.	ML & H Co
TOWNSHIP	Goshen	Huston	Lawrence	Lawrence	Goshen	Goshen	Goshen	Goshen	Goshen	Lawrence
LATITUDE	5850 ft. S 41°15'	10,000 ft. S 41°15'	8300 ft. S 41°15'	13,000 ft. S 41°15'	10,600 ft. S 41°15'	11,200 ft. S 41°15'	10,500 ft. S 41°15'	10,900 ft. S 41°15'	12,100 ft. S 41°15'	18,000 ft. S 41°15'
LONGITUDE	9000 ft. W 78°20'	3850 ft. E 78°30'	3900 ft. W 78°25'	11,600 ft. E 78°30'	7600 ft. E 78°25'	6100 ft. E 78°25'	5980 ft. E 78°25'	10,100 ft. E 78°25'	4200 ft. E 78°25'	9700 ft. W 78°25'
DATE COMPLETED	4-7-55	10-12-55	9-24-55	9-26-55	11-26-56	4-5-57	6-2-57	8-12-57	9-4-57	11-1-57
ELEVATION	1987	1650	1530	1939	1538	1716	1489	1926	1976	1939
TULLY	6330-6455	6180-	5810-	6205-6325	5960-6078	6175-6300	5910-6040	6378-6490	6383-6512	6261-63
ONONDAGA LIMESTONE	7037-	6855-	6495-	6880-	6690-	6868-	6625-	7062-	7092-	6954-
ONONDAGA CHERT				6895-		6891-	6645-	7084-	7108-	6971-
ORISKANY	7085-7093	6927-	6549-	6933-6940	6752-	6918-6926	6674-6680	7113-7121 Shriver 7121-	7137-7142	7002-7
HELDERBERG	7093-			6940-		6926-	6680-		7142-	7009-
TOTAL DEPTH	7105	6951	6561	6975	6766	6928	6681	7126	7146	7011
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Oriskany	Helderberg	Oriskany	Helderberg	Helderberg	Oriskany	Helderberg	Helderb
RESULT	10F 869 Mcf RP 2600 psi 5 days	380 Mcf AF RP 2275 psi 120 hrs.	10F 280 Mcf RP 2120 psi 6 days	778 Mcf AS RP 3160 psi 128 hrs.	950 Mcf AF RP 3700 psi 66 hrs.	10F 1270 Mcf RP 3420 psi 72 hrs.	3474 Mcf AF RP 1243 psi 3 hrs.	2700 Mcf AF	3143 Mcf AF RP 3310 psi	39 Mcf RP 150 60 h

TABLE 15
SHEET 5

CLEARFIELD COUNTY

QUADRANGLE		Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Clearfield	Curwensville
QUADRANGLE NUMBER		34	35	36	37	38	39	40	41	42	1
NAME OF WELL		Pa. Tract 42 3	Pa. Tract 32 6	Shirey 1	Pa. Tract 36 6	Pa. Tract 32 7	Pa. Tract 36 5	Underhill 1	Pa. Tract 40 3	Underhill 1 Wt 4899	Robbins 1
OPERATOR		Parsons Brothers	NYSNG Corp (N576)	Parsons Brothers	Parsons Brothers	NYSNG Corp. (N620)	Parsons Brothers	Devonian Gas & Oil Co.	M L & H Co.	Devonian Gas & Oil Co	F C Deemer
TOWNSHIP		Goshen	Goshen	Bradford	Goshen	Goshen	Goshen	Huston	Goshen	Huston	Bell
LATITUDE		10,500 ft. S 41°15'	9750 ft. S 41°15'	14,000 ft. S 41°05'	8700 ft. S 41°15'	9500 ft. S 41°15'	7200 ft. S 41°15'	10,500 ft. S 41°15'	9100 ft. S 41°15'	4650 ft. S 41°15'	7600 ft N 40°55'
LONGITUDE		9300 ft W 78°20'	9200 ft E 78°25'	2900 ft W 78°20'	8500 ft W 78°20'	11,500 ft E 78°25'	4250 ft W 78°20'	2000 ft E 78°30'	500 ft E 78°25'	3600 ft E 78°30'	700 ft E 78°45'
DATE COMPLETED		10-26-57	11-19-57	11-29-57	1-22-58	2-14-58	2-7-58	5-23-58	6-27-58	2-19-59	9-13-57
ELEVATION		2005	1615	1405	1986	1733	2103	1700	2028	1860	2086
TULLY		6385-6495	6074-	6815-7012	6380-	6165-	6445-6560	6187-	6295-6416	6459-6575	7005-
ONONDAGA	LIMESTONE	7126-	6782-	7750-	7080-	6900-	7200-	6870-	6980-	7113-	7749-
	CHERT	7145-	6800-	7765-	7096-	6920-	7223-	6880-	7001-	7135-	
ORISKANY		7177-7184	6831-6837	7800-7822 Shriver 7822-	7129-7138	6946-6951	7254-7261	6928-6950	7034-7036	7179-7202	7819-
HELDERBERG		7184-	6837-		7138-	6951-	7261-	6950-	7036-	7202-	
TOTAL DEPTH		7185	6838	7862	7146	6955	7267	6973	7042	7210	7878
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT		200 Mcf AF RP 1450 psi 60 hrs.	3775 Mcf AF RP 1500 psi 24 hrs.	Show of gas 7800-7805 7807-7812 7835-7837 Abandoned	3000 Mcf AF RP 1050 psi 14 hrs.	928 Mcf AF RP 2100 psi 10 days	150 Mcf AF Abandoned	926 Mcf AF RP 2650 psi 95 hrs.	Dry Abandoned	500 Mcf AF RP 3200 psi 72 hrs.	400 Mcf AS 500 bbls SW 12 hrs Abandoned

TABLE 15
SHEET 6

CLEARFIELD COUNTY

QUADRANGLE	DuBois	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	1	6	7	8	9	10	12	13	14	15
NAME OF WELL	Calvin Bean 1	Eva Moore 1	S.M. Bailey 1	John Hayes 1	Gertrude Kirk 1	W.M. Reiter 1	Bolton-Gilmore 1	Brewer 1	Conrad Hrs. 1	Haas & Rockey
OPERATOR	T.W. Phillips Gas & Oil Co. & John Fox	Rockton Drilling Co.	Rockton Drilling Co.	N.Y.S.N.G. Corp. (N465)	Hanley & Bird	Godfrey L. Cabot, Inc.	Fairman Drilling Co.	John Fox	Rockton Drilling Co.	Fairman Drilling Co
TOWNSHIP	Brady	Union	Union	Brady	Brady	Huston	Brady	Union	Union	Brady
LATITUDE	300 ft. N 41°00'	6450 ft. S 41°05'	3800 ft. S 41°05'	2700 ft. S 41°05'	3700 ft. S 41°05'	1900 ft. N 41°10'	6200 ft. S 41°05'	700 ft. N 41°05'	1700 ft. S 41°05'	9300 ft. S 41°05'
LONGITUDE	1575 ft. W 78°45'	3600 ft. W 78°40'	4600 ft. W 78°40'	10,900 ft. W 78°40'	6500 ft. W 78°40'	5700 ft. W 78°30'	7600 ft. W 78°40'	3700 ft. W 78°40'	2500 ft. W 78°40'	12,900 ft. W 78°40'
DATE COMPLETED	1-18-57	2-25-55	8-1-55	12-2-55	10-17-55	10-10-55	4-27-56	10-29-56	6-24-56	6-26-56
ELEVATION	1563	1860	1800	1646	1741	1786	1696	1886	1816	1792
TULLY	6470-6570	6500?-	6415-6540	6449-6555	6365-6480	6335-6452	6327-6468	6615-	6530-	6447-
ONONDAGA LIMESTONE	7237-	7120-	7052-	7085-	6990-	7027-	6968-	7223-	7271-	7102-
ONONDAGA CHERT	7263-	7135-	7066-	7100?-						7116-
ORISKANY	7318-7324	7213-7219	7119-7129	7155-	7046-7059	7077-7085	7030-7041	7285-	7360-	7167-7179
HELDERBERG	7324-	7219-	7129-		7059-	7085-7222?	7041-			7179-
KEYSER						7222?-				
TOTAL DEPTH	7328	7236	7144	7172	7074	7256	7068	7335	7370	7195
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Keyser	Helderberg	Helderberg	Oriskany	Helderberg
RESULT	Est 30 Mcf AF Orig TD 7273' Drilled deeper 1958 2 gal. SW/hr Acidized Abandoned	515 Mcf AF RP 3275 psi 44 hrs. Discovery well Rockton Pool	2000 Mcf AF RP 3950 psi 48 hrs.	I.O.F. 8000 Mcf RP 3800 psi 10 days	4100 Mcf AF RP 3800 psi 37 hrs.	15 Mcf AF	1212 Mcf after acidizing RP 3400 psi	3400 Mcf AF RP 3480 psi	Fraced chert 2147 Mcf AF RP 3800 psi	2700 Mcf AF RP 3400 psi 24 hrs

TABLE 15
SHEET 7

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	16	17	18	19	20	21	22	23	24	25
NAME OF WELL	C.P. Harris 1	Milton Hartzfield 1	Hopton 1	Nellie Jammison 1	M.L. Kirk 1	M.L. Kirk 2	Kruger 1	McGoughey 1	Eva Moore 1	Wm. F. Moore 1
OPERATOR	Godfrey L. Cabot, Inc	NYSNG Corp (N483)	John Fox	Fairman Drilling Co.	T.W. Phillips Gas & Oil Co.	T.W. Phillips Gas & Oil Co.	John Fox	Fairman Drilling Co.	NYSNG Corp (N509)	NYSNG Corp. (N485)
TOWNSHIP	Brady	Brady	Brady	Brady	Brady	Brady	Brady	Brady	Brady	Brady
LATITUDE	1000 ft. N 41°00'	6250 ft. S 41°05'	2100 ft. S 41°05'	3500 ft. S 41°05'	4800 ft. S 41°05'	5800 ft. S 41°05'	1800 ft. S 41°05'	11,700 ft. S 41°05'	8900 ft. S 41°05'	5400 ft. S 41°05'
LONGITUDE	5700 ft. E 78°45'	13,900 ft. W 78°40'	12,900 ft. W 78°40'	10,700 ft. W 78°40'	6800 ft. W 78°40'	8400 ft. W 78°40'	6400 ft. W 78°40'	5750 ft. E 78°45'	7800 ft. E 78°45'	16,300 ft. W 78°40'
DATE COMPLETED	3-13-56	5-28-56	9-7-56	5-28-56	4-12-56	8-17-56	7-6-56	8-15-56	12-28-56	10-22-56
ELEVATION	1992	1648	1623	1839	1692	1721	1901	1791	1663	1724
TULLY	6840-6980	6442-6577	6487-	6576-	6321-6460	6355-6425	6668-	6536-	6433-6560	6745-6913
ONONDAGA LIMESTONE	7582-	7087-	7279-	7194-	7009-	7017-	7450-	7186-	7063-	7490-
ONONDAGA CHERT	7598-				7015-	7034-				7500-
ORISKANY	7657-7660	7151-7172		7255-7276	7069-7079	7081-7093	7518-	7255-	7134-7153	7555-
HELDERBERG	7660-	7172-		7276-	7079-	7093-			7153-	
TOTAL DEPTH	7707	7175	7344	7285	7088	7094	7537	7273	7154	7569
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Onondaga	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany
RESULT	35 Mcf AF	2075 Mcf AF RP 3580 psi 130 hrs.	2600 Mcf AF RP 3250 psi	750 Mcf AS RP 3000 psi 38 hrs.	1418 Mcf AF RP 1400 psi 16 hrs.	850 Mcf AF	881 Mcf after acidizing RP 1800 psi	5000 Mcf AF RP 3600 psi 13 hrs.	4191 Mcf AF RP 2560 psi 18 hrs.	3024 ft. SW of 7569 Abandoned

TABLE 15
SHEET 8

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	26	27	28	29	30	31	32	33	34	35
NAME OF WELL	Clyde Muth 1	Ray Nelson 1	Ord Oaks 1	Pa. Tract 63 1	Reitz 1	Isabel Rowland 1	Harvey H Seyler 1	Stallman & Simpson 1	Wachob 1	T.B. Wachob 1
OPERATOR	Fairman Drilling Co.	NYSNG Corp (N484)	T.W. Phillips Gas & Oil Co.	NYSNG Corp (N505)	I.H. Hague	NYSNG Corp (N489)	Columbian Carbon Co.	Brookville Drilling Co.	John Fox	NYSNG Corp (N503)
TOWNSHIP	Brady	Brady	Brady	Huston	Brady	Brady	Brady	Brady	Brady	Brady
LATITUDE	14,700 ft. S 41°05'	1600 ft. S 41°05'	5200 ft. S 41°05'	4600 ft. S 41°10'	8000 ft. S 41°05'	1500 ft. S 41°05'	13,600 ft. S 41°05'	7100 ft. N 41°00	4300 ft. S 41°05'	5450 ft. S 41°05'
LONGITUDE	17,800 ft. W 78°40°	16,400 ft. W 78°40'	10,100 ft. W 78°40	1650 ft. E 78°35'	9000 ft. E 78°45'	5350 ft. W 78°40'	15,500 ft. E 78°45'	4100 ft. E 78°45'	10,000 ft. E 78°45'	11,450 ft. W 78°40'
DATE COMPLETED	10-5-56	9-20-56	3-8-56	12-12-56	11-23-56	8-3-56	4-24-56	8-24-56	9-7-56	11-28-56
ELEVATION	1661	1479	1911	1911	1701	1657	1949	1633	1698	1683
TULLY	6370-	6641-6760	6590-6720	6635-6745	6455-	6340-6469	6530-6600	6420-	6512-	6405-
ONONDAGA LIMESTONE	7058-	7260-	7218-	7282-	7070-	6980-	7218-	7102-	7225-	7010-
ONONDAGA CHERT		7270-	7235-	7295-			7238-	7112-		
ORISKANY	7119-7135	7323-	7284-7299	7345-7364	7136-7138	7053-7070	7292-7300	7170-7175	7288-7308	7077-7095
HELDERBERG	7135-		7299-	7364-	7138-	7070-	7300-	7175-	7308-	7095-
TOTAL DEPTH	7136	7336	7302	7367	7157	7071	7350	7180	7313	7097
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	450 Mcf AF RP 3300 psi 3 days	Hole full of salt water before and after frac	5500 Mcf AF RP 3840 psi 64 hrs	6981 Mcf AF RP 3460 psi 6 days	880 Mcf AF RP 2540 psi 48 hrs	5500 Mcf AF RP 3700 psi 48 hrs	60 Mcf AF Abandoned	387 Mcf AF RP 3500 psi	2800 Mcf AF RP 3550 psi	1720 Mcf AF RP 1910 psi 66 hrs

TABLE 15
SHEET 9

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	36	37	38	39	40	41	42	43	44	45
NAME OF WELL	Whitney Realty Co. 1	DuBois Brewing Co. 1	Wm. Wingert 1	Chas. Wingert 1	Milton Hartzfield 2	Howard Huey 1	John Wells 1	Burt E. Knarr 1	Bailey 1	Pa. Tract 63 2
OPERATOR	Lomega Exploration, Ltd	Keta Gas & Oil Co	T.W. Phillips Gas & Oil Co	James Drilling Co	NYSNG Corp (N506)	Hanley & Bird	Fairman Drilling Co	NYSNG Corp (N511)	Keta Gas & Oil Co	NYSNG Corp (N528)
TOWNSHIP	Huston	Brady	Brady	Brady	Brady	Union	Union	Brady	Union	Huston
LATITUDE	9400 ft. S 41°10'	11,100 ft. S 41°05'	7900 ft. S 41°05'	11,800 ft. S 41°05'	6400 ft. S 41°05'	650 ft. S 41°05'	2600 ft. S. 41°05'	12,500 ft. S 41°05'	2150 ft. S 41°05'	4700 ft. S 41°10'
LONGITUDE	1200 ft. W 78°35'	10,250 ft. E 78°45'	8400 ft. E 78°45'	8900 ft. E 78°45'	11,400 ft. W 78°40'	3700 ft. W 78°40'	5200 ft. W 78°40'	4750 ft. E 78°40'	4000 ft. W 78°40'	3800 ft. E 78°35'
DATE COMPLETED	5-31-57	11-2-56	5-28-56	12-13-56	1-17-57	1-17-57	1-24-57	2-7-57	2-15-57	3-1-57
ELEVATION	1728	1990	1637	1800	1711	1787	1880	1838	1739	1941
TULLY	6405-	6745-	6460-6580	6494-6633	6405-6560	6461-	6516-	6630-6750	6415-	6584-
ONONDAGA LIMESTONE	7055-	7622-	7105-	7138-	7042-	7216-	7136-	7244-	7080-	7295-
ONONDAGA CHERT	7072-		7118-	7155-	7068-	7234-	7159-	7255-	7098	7316-
ORISKANY	7122-7131	7706-7722	7166-7179	7212-7221	7108-7128	7300-7318	7204-7212	7309-7329	7154-7159	7367-7379
HELDERBERG	7131-	7722-	7179-	7221-	7128-	7318-	7212-	7329-	7159-	7379-
TOTAL DEPTH	7138	7726	7181	7226	7132	7325	7214	7330	7169	7382
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	1650 Mcf AF	1250 Mcf AF RP 3680 psi 4 days	5957 Mcf AF	1400 Mcf AF RP 3400 psi 36 hrs	1750 Mcf AF RP 1950 psi 5 days	850 Mcf AF RP 2550 psi 88 hrs.	1000 Mcf AF	880 Mcf AF RP 2960 psi 6½ days	950 Mcf AF RP 2560 psi 8 days	3243 Mcf AF RP 2940 psi 36½ hrs

TABLE 15
SHEET 10

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	46	47	48	49	50	51	52	53	54	55
NAME OF WELL	Pa Tract 63 3	Helen D.S. Gordon 1	Edna Nolder 1	Barney Bailey 1	Pa Tract 63 4	Whitney Realty Co. 3	Whitney Realty Co. 2	W Kimmel 1	A.L. Orner, et ux 1	Helen D.S. Gordon 2
OPERATOR	NYSNG Corp. (N534)	NYSNG Corp. (N540)	James Drilling Co.	NYSNG Corp. (N539)	NYSNG Corp. (N535)	Swan & Finch Gas Dev Co.	Rockton Drilling Co.	NYSNG Corp (N538)	NYSNG Corp. (N559)	NYSNG Corp (N558)
TOWNSHIP	Huston	Huston	Brady	Union	Huston	Huston	Huston	Union	Union	Huston
LATITUDE	4850 ft S 41°10'	3350 ft S 41°10'	11,100 ft S 41°05'	18,500 ft S 41°10'	7900 ft S 41°10'	5500 ft S 41°10'	9250 ft S 41°10'	17,400 ft S 41°10'	9200 ft N 41°05'	3700 ft S 41°10°
LONGITUDE	16,900 ft W 78°30'	1800 ft E 78°35'	6350 ft E 78°45'	17,100 ft W 78°35'	1000 ft E 78°35'	600 ft E 78°35'	4400 ft W 78°35'	16,100 ft W 78°35'	4550 ft E 78°40'	15,800 ft W 78°30'
DATE COMPLETED	2-23-57	2-23-57	3-8-57	3-28-57	3-28-57	4-5-57	4-30-57	4-15-57	5-17-57	5-19-57
ELEVATION	2022	1856	1843	1750	1798	1806	1775	1827	1803	2040
TULLY	6605-6722	6650-	6625-	6722-	6388-6500	6550-	6550-	6840-	6683-6802	6635-
ONONDAGA LIMESTONE	7258-	7289-	7272-	7349-	7024-	7183-	7184-	7460-	7309-	7290-
ONONDAGA CHERT	7272-	7312-	7288-	7360-	7044-	7200-	7198-	7480-	7324-	7310-
ORISKANY	7321-7331	7361-7380	7357-7375	7417-7443	7094-7102	7252-7268	7248-7260	7535-7560	7380-7401	7357-7365
HELDERBERG	7331-	7380-	7375-	7443-	7102-	7268-	7260-	7560-	7401-	7365-
TOTAL DEPTH	7332	7382	7378	7444	7103	7289	7270	7561	7402	7366
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	4800 Mcf AF RP 3750 psi 65 hrs	1750 Mcf AF RP 3705 psi 93 hrs	4600 Mcf AF RP 2875 psi 24 hrs	8000 Mcf AF RP 3700 psi 15 hrs.	4115 Mcf AF RP 3340 psi 45 hrs	3393 Mcf AF RP 3500 psi	3600 Mcf AF	5500 Mcf AF RP 3705 psi 45 hrs	5325 Mcf AF RP 3480 psi 96 hrs	3600 Mcf AF RP 2810 psi 24 hrs

TABLE 15
SHEET 11

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	56	57	58	59	60	61	62	63	64	65
NAME OF WELL	John B. Welty 1	Raymond Bloom 1	Broker 1	Rex Gray 1	Thomas M Kirk 1	Scholl 1	Pa Tract 60 1	Vasbinder 1	Whitney Realty Co. 5	D Swope et ux 1
OPERATOR	Hanley & Bird	NYSNG Corp. (N564)	J. Hogue	Swan & Finch Gas Dev Co.	M L & H Co.	Devonian Gas & Oil Co	NYSNG Corp (N548)	Swan & Finch Gas Dev Co.	Lomega Exploration, Ltd.	NYSNG Corp.
TOWNSHIP	Union	Union	Union	Union	Union	Union	Union	Union	Huston	Brady
LATITUDE	600 ft. N 41°05'	12,900 ft. N 41°05'	9500 ft. N 41°05'	19,500 ft. S 41°10'	11,000 ft. N 41°05'	5550 ft. N 41°05'	26,700 ft. S 41°10'	11,000 ft. S 41°10'	7450 ft. S 41°10'	10,450 ft. S 41°05'
LONGITUDE	275 ft. W 78°40'	4200 ft. E 78°40'	8000 ft. W 78°35'	17,050 ft. W 78°35'	4500 ft. E 78°40'	800 ft. W 78°40'	6150 ft. W 78°35'	5500 ft. W 78°35'	1950 ft. W 78°35'	17,550 ft. W 78°40'
DATE COMPLETED	6-21-47	2-7-58	5-16-58	6-19-57	6-24-57	7-6-57	8-20-57	7-6-57	7-4-57	7-26-57
ELEVATION	1798	1774	1941	1733	1761	1513	1932	1698	1783	1761
TULLY	6560-	6605-6725	6484-	6650-	6730-	6310-	6277-6412	6481-	6585-	6590-
ONONDAGA LIMESTONE	7334-	7245-	7145-	7297-	7367-	6933-	6963-	7131-	7230-	7223-
ONONDAGA CHERT	7354-	7261-	7159-	7317-	7381-	6945-	6975-	7153-	7246-	7238-
ORISKANY	7433-7446	7319-7343	7221-7825	7360-7384	7437-7460	7009-7033	7037-7040	7222-7240	7296-7314	7296-7317
HELDERBERG	7446-	7343-	7825-	7384-	7460-	7033-	7040-	7240-	7314-	7317-
TOTAL DEPTH	7448	7345	7827	7390	7462	7035	7045	7250	7325	7318
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	750 Mcf AF RP 3050 psi 65 hrs	Original T.D. 7319 6-15-57 6000 Mcf RP 3845 psi 6 days 2400 Mcf after D.D.	Dry Abandoned	6631 Mcf AF RP 2500 psi 48 hrs	3421 Mcf AF RP 2425 psi 24 hrs.	2500 Mcf AF RP 3460 psi 78 hrs.	18 Mcf AF Abandoned	771 Mcf AF RP 3200 psi 36 hrs	4547 Mcf AF RP 3250 psi 36 hrs	1283 Mcf AF RP 1830 psi 13 hrs.

TABLE 15
SHEET 12

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	66	67	68	69	70	71	72	73	74	75
NAME OF WELL	Sure Shot Land & Gun Club 1	Whitney Realty Co. 4	Leslie Bloom 1	Glenn W. Holly 1	P.R. Bailey 1	Raymond E. Bloom et ux 2	Fair 1	A. Brubaker 1	Emery Miller 1	Pa. Tract 93 1
OPERATOR	The Sylvania Corp.	Lomega Exploration, Ltd	Conroy	ML & H Co.	Harry Brunt	NYSNG Corp.	Heller	NYSNG Corp (N568)	Devonian G & O Co and Fairman Drlg. Co	NYSNG Corp (N560)
TOWNSHIP	Union	Huston	Union	Union	Union	Union	Union	Union	Union	Union
LATITUDE	12,450 ft. S 41°10'	7450 ft. S 41°10'	17,550 ft. S 41°10'	12,200 ft. N 41°05'	11,300 ft. N 41°05'	16,150 ft. S 41°10'	9600 ft. N 41°05'	1500 ft. N 41°05'	16,450 ft. S 41°10'	14,300 ft. S 41°10'
LONGITUDE	6950 ft. W 78°35'	22,600 ft. W 78°30'	19,150 ft. W 78°35'	8300 ft. E 78°40'	8500 ft. E 78°40'	18,200 ft. W 78°35'	5600 ft. E 78°40'	2500 ft. E 78°40'	3800 ft. E 78°40'	9200 ft. E 78°40'
DATE COMPLETED	7-27-57	7-26-57	8-8-57	8-12-57	8-14-57	7-18-57	8-26-57	8-24-57	8-29-57	10-10-57
ELEVATION	1807	1733	1778	1857	1828	1729	1684	1744	1787	1830
TULLY	6580-6642	6440-	6602-	6800-6924	6665-	6591-	6575-	6391-6520	6650-	6882-7000
ONONDAGA LIMESTONE	7238-	7095-	7226-	7467-	7291-	7203-	7205-	7044-	7250-	7510-
ONONDAGA CHERT	7253-	7115-	7246-	7478-	7305-	7220-	7220-	7060-	7260-	7531-
ORISKANY	7307-7325	7183-7206	7311-7330	7538-7558	7361-7373	7279-7306	7283-7298	7118-7126	7324-	7589
HELDERBERG	7325-	7206-	7330-	7558-	7373-	7306-	7298-	7126-		
TOTAL DEPTH	7327	7216	7336	7559	7376	7307	7299	7127	7343	7605
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Oriskany
RESULT	976 Mcf AF RP 3500 psi 18 hrs	1200 Mcf AF	16,500 Mcf AF RP 2525 psi 14 hrs.	4200 Mcf AF RP 2750 psi 48 hrs.	3100 Mcf AF RP 2740 psi 36 hrs.	23,938 Mcf AF RP 2655 psi 17 hrs.	3250 Mcf AF RP 1780 psi 24 hrs	1174 Mcf AF RP 3190 psi 64 hrs.	14,300 Mcf AF RP 2050 psi 14 hrs	Show of gas and salt water in Oriskany Abandoned

TABLE 15
SHEET 13

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	76	77	78	79	80	81	82	83	84	85
NAME OF WELL	Sure Shot Land & Gun Club 2	City of DuBois Tract 28 1	W Miller 1	W Show 1	Charles Dawson 1	Gordon & Reiter 1	Sarah Orner 2	Leslie Bloom 2	Lafayette College 1	H LaRock 1
OPERATOR	The Sylvania Corp.	NYSNG Corp (N583)	Harry Brunt	M L & H Co.	NYSNG Corp (N578)	Godfrey L Cabot Inc.	Keta Gas & Oil Co.	Lomega Exploration, Ltd.	Rockton Drilling Co	ML & H Co
TOWNSHIP	Union	Union	Union	Union	Union	Huston	Union	Union	Union	Union
LATITUDE	15,900 ft. S 41°10'	15,200 ft. S 41°10'	14,600 ft. S 41°10'	19,200 ft. S 41°10'	14,600 ft. S 41°10'	28,650 ft. S 41°15'	18,700 ft. S 41°10'	13,350 ft. N 41°05'	7950 ft. N 41°05'	9200 ft. N 41°05'
LONGITUDE	12,300 ft. W 78°35'	16,350 ft. W 78°35'	6200 ft. E 78°40'	9650 ft. W 78°35'	17,850 ft. W 78°35'	13,300 ft. W 78°30'	20,750 ft. W 78°35'	2750 ft. E 78°40'	2500 ft. E 78°40'	5300 ft. E 78°40'
DATE COMPLETED	9-12-57	9-13-57	9-17-57	9-14-57	9-21-57	9-20-57	9-20-57	10-1-57	9-27-57	9-20-57
ELEVATION	1761	1727	1717	1872	1805	1744	1733	1753	1792	1703
TULLY	6665-6785	6520-	6569-	6435-6560	6706-6813	6430-6560	6602-	6620-	6665-	6555-6685
ONONDAGA LIMESTONE	7284-	7266-	7171-	7080-	7319-	7072-	7261-	7355-	7322-	7197-
ONONDAGA CHERT	7298-	7280-	7182-	7092-	7329-	7088-	7269-	7371-	7337-	7208-
ORISKANY	7358-7378	7350-7372	7244-	7149-7156	7389-7420	7139-7157	7333-7356	7440-7450	7382-7400	7264-7282
HELDERBERG	7378-	7372-		7156-	7420-	7157-	7356-	7450-	7400-	7282-
TOTAL DEPTH	7379	7378	7255	7158	7421	7159	7361	7461	7403	7285
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	4881 Mcf AF RP 3060 psi 30 hrs.	2034 Mcf AF RP 2400 psi 70 hrs.	65,000 Mcf RP 2180 psi 9 hrs.	2700 Mcf AF RP 3275 psi 44 hrs.	5731 Mcf AF RP 2250 psi 36 hrs.	6316 Mcf AF RP 3800 psi 78 hrs.	25 Mcf gas and salt water after frac. Abandoned	Dry Salt water AF Abandoned	3900 Mcf AF RP 2800 psi 72 hrs.	2700 Mcf AF RP 1825 psi 48 hrs.

TABLE 15
SHEET 14

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	86	87	88	89	90	91	92	93	94	95
NAME OF WELL	Pa Tract 93 2	Bowersox Est. 1	Chas. Blanchard 1	Green Glen 1	Green Glen 1	Helen D.S. Gordon 3	Pa. Tract 63 5	Baker Run Reserve 1	D.W. Conrad 1	Scholl 2
OPERATOR	NYSNG Corp. (N577)	Rockton Drilling Co	NYSNG Corp. (N594)	Hanley & Bird	M L & H Co	NYSNG Corp. (N573)	NYSNG Corp. (N572)	F C Deemer	M L & H Co	Devonian Gas & Oil Co
TOWNSHIP	Union	Union	Union	Brady	Huston	Huston	Pine	Huston	Union	Union
LATITUDE	13,900 ft. S 41°10'	15,200 ft. N 41°05'	15,500 ft. S 41°10'	29,800 ft. S 41°10'	25,650 ft. S 41°15'	750 ft. N 41°10'	10,900 ft. S 41°10'	11,050 ft. S 41°10'	7100 ft. N 41°05'	7150 ft. N 41°05'
LONGITUDE	6700 ft. E 78°40'	3200 ft. E 78°40'	17,550 ft. W 78°35'	5300 ft. W 78°40'	22,500 ft. W 78°30'	6950 ft. E 78°35'	21,000 ft. W 78°30'	12,850 ft. W 78°35'	17,000 ft. W 78°35'	700 ft. E 78°40'
DATE COMPLETED	11-1-57	10-16-57	11-3-57	10-15-57	12-23-57	10-15-57	10-15-57	10-19-57	10-25-57	11-5-57
ELEVATION	1737	1766	1759	1831	1373	1794	1803	1713	1746	1811
TULLY	6600-	6675-	6620-	6550-	6295-6402	6500-	6340-6455	6604-	6457-6580	6681-
ONONDAGA LIMESTONE	7205-	7282-	7225-	7183-	7069-	7150-	6990-	7201-	7104-	7321-
ONONDAGA CHERT	7216-	7291-	7240-	7191-	7083-	7165-	7005-	7211-	7111-	7332-
ORISKANY	7267-7298	7366-	7302-	7242-7260	7150-7160	7219-7234	7057-7062	7263-7287	7180-7192	7389-
HELDERBERG	7298-			7260-	7160-	7234-	7062-	7287-	7192-	
TOTAL DEPTH	7299	7396	7319	7331	7168	7235	7063	7288	7194	7406
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany
RESULT	11401 Mcf AF RP 1420 psi 25 hrs.	I.O.F. 13701 Mcf RP 3200 psi 12 hrs.	8000 Mcf AF RP 1580 psi 41 hrs. Water killed gas flow after frac	1800 Mcf AF RP 2375 psi	Show of gas 3400' salt water Abandoned	6800 Mcf AF RP 3240 psi 40 hrs	267 Mcf AF RP 1300 psi 19 hrs.	13,500 Mcf AF RP 1650 psi 24 hrs.	1900 Mcf AF RP 3310 psi 60 hrs.	4000 Mcf AF RP 2475 psi 40 hrs

TABLE 15
SHEET 15

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	96	97	98	99	100	101	102	103	104	105
NAME OF WELL	C.G. Schwem 1	Jesse U. Weber 1	Sure Shot Land & Gun Club 3	S.E. Orner 1	M.N. Laborde 1	R.C. Brubaker 1	A.L. Orner 2	Pudlo Camp 1	Baker Run Reserve 2	Ansel Beer 1
OPERATOR	NYSNG Corp (N579)	NYSNG Corp. (N580)	The Sylvania Corp.	T.W. Phillips Gas & Oil Co.	C. Heller	NYSNG Corp. (N595)	T.W. Phillips Gas & Oil Co.	Keta Gas & Oil Co.	F.C. Deemer	NYSNG Corp. (N596)
TOWNSHIP	Union	Union	Union	Union	Union	Union	Union	Huston	Huston	Union
LATITUDE	12,400 ft. S 41°10'	12,600 ft. S 41°10'	18,400 ft. S 41°10'	9300 ft. N 41°05'	24,300 ft. S 41°10'	4100 ft. N 41°05'	10,200 ft. N 41°05'	1500 ft. S 41°10'	9000 ft. S 41°10'	3000 ft. N 41°05'
LONGITUDE	8700 ft. E 78°40'	5750 ft. E 78°40'	12,550 ft. W 78°35'	3700 ft. E 78°40'	17,800 ft. W 78°35'	6950 ft. E 78°40'	3200 ft. E 78°40'	8550 ft. E 78°35'	12,800 ft. W 78°35'	5000 ft. E 78°40'
DATE COMPLETED	12-20-57	11-12-57	11-15-57	11-25-57	11-29-57	11-27-57	12-13-57	12-6-57	12-14-57	12-23-57
ELEVATION	1743	1750	1761	1816	1830	2001	1732	1785	1487	2025
TULLY	6598-6708	6695-6765	6547-6622	6741-6801	6541-	6600-	6702-6825	6435-	6445-	6605-
ONONDAGA LIMESTONE	7331-	7274-	7181-	7427-	7186-	7310-	7360-	7085-	7046-	7228-
ONONDAGA CHERT	7353-	7289-	7194-	7443-	7200-	7324-	7374-	7102-	7062-	7243-
ORISKANY	7427-	7347-7379	7254-7271	7499-7522	7263-7276	7378-7386	7437-7457	7158-7172	7111-	7288-7294
HELDERBERG		7379-	7271-	7522-	7276-	7386-	7457-	7172-		7294-
TOTAL DEPTH	7455	7380	7272	7523	7279	7387	7465	7180	7135	7296
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg
RESULT	60 Mcf gas and salt water in Oriskany Abandoned	4597 Mcf AF RP 1920 psi 23 hrs.	2013 Mcf AF RP 2450 psi 60 hrs.	1853 Mcf AF RP 654 psi 1 hr.	600 Mcf AF RP 2600 psi 40 hrs.	400 Mcf AF RP 2080 psi 7 days	26 Mcf AF	3100 Mcf AF RP 2510 psi 24 hrs.	1875 Mcf AF RP 2540 psi	2157 Mcf AF RP 2725 psi 55 hrs.

TABLE 15
SHEET 16

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	106	107	108	109	110	111	112	113	114	115
NAME OF WELL	City of DuBois 3	Gordon & Reifer 2	Pa Tract 62 1	Pa Tract 49 1	Baker Run Reserve 3	Emery Miller 2	Green Glen 1	City of DuBois 2	H.T. & L.M. Shaffer 1	Telford Bogle 1
OPERATOR	NYSNG Corp. (N591)	Godfrey L. Cabot, Inc.	NYSNG Corp. (N547)	NYSNG Corp. (N604)	F.C. Deemer	Devonian Gas & Oil Co.	NYSNG Corp. (N614)	NYSNG Corp (N590)	T.W. Phillips Gas & Oil Co.	Fairman Drilling Co
TOWNSHIP	Union	Huston	Pine	Huston	Huston	Union	Union	Union	Union	Union
LATITUDE	11,300 ft. N 41°05'	3650 ft. N 41°10'	6600 ft. N 41°05'	1900 ft. N 41°10'	6400 ft. S 41°10'	14,500 ft. N 41°05'	17,050 ft. N 41°05'	9000 ft. N 41°05'	6400 ft. N 41°05'	5850 ft. N 41°05'
LONGITUDE	9450 ft. E 78°40'	9200 ft. E 78°35'	1500 ft. E 78°35'	11,000 ft. W 78°30'	8600 ft. W 78°35'	2700 ft. E 78°40'	3800 ft. E 78°40'	5800 ft. E 78°40'	600 ft. E 78°40'	2000 ft. E 78°40'
DATE COMPLETED	1-2-58	12-27-57	1-4-58	1-15-58	12-30-57	1-15-58	12-31-57	1-13-58	1-31-58	2-2-58
ELEVATION	1725	1898	2103	1835	1428	1768	1756	1685	1720	1677
TULLY	6533-	6640-6752	6419-	6485-6595	6471-	6653-	6730-	6510-	6510-6600	6480-
ONONDAGA LIMESTONE	7183-	7288-	7101-	7138-	7081-	7250-	7339-	7154-	7135-	7136-
ONONDAGA CHERT	7198-	7301-	7113-	7151-	7094-	7264-	7352-	7166-	7151-	7150-
ORISKANY	7264-7278	7344-7358	7166-	7197-7211	7140-	7327-7348	7399-7425	7221-7239	7205-7224	7205-7220
HELDERBERG	7278-	7358-		7211-		7348-	7425-	7239-	7224-	7220-
TOTAL DEPTH	7279	7360	7172	7212	7154	7349	7426	7240	7263	7223
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Oriskany	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	1099 Mcf AF RP 1400 psi 24 hrs.	7000 Mcf AF RP 3450 psi 48 hrs.	134 Mcf AF RP 3740 psi 60 hrs.	12,063 Mcf AF RP 3225 psi 10 days	15,000 Mcf AF RP 3375 psi 36 hrs.	20,000 Mcf RP 2440 psi 65 hrs.	1600 Mcf AF RP 1840 psi 24 hrs.	622 Mcf AF RP 760 psi 9 days	2600 Mcf AF RP 2340 psi 14 hrs.	1600 Mcf AF RP 2340 psi 2 days

TABLE 15
SHEET 17

CLEARFIELD COUNTY

QUADRANGLE		Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER		116	117	118	119	120	121	122	123	124	125
NAME OF WELL		City of DuBois 4	Sure Shot Land & Gun Club 4	Pa. Tract 76 1	Helen D.S. Gordon 4	Baker Run Reserve 4	Green Glen 1	Pa. Tract 49 2	Pa. Tract 76 2	Gordon Bender 1	C.G. Schwem 2
OPERATOR		NYSNG Corp (N608)	The Sylvania Corp	M L & H Co.	NYSNG Corp (N622)	F C. Deemer	Fairman Drlg Co & NYSNG (N640)	NYSNG Corp (N627)	M L & H Co.	Guy McCracken	NYSNG Corp (N603)
TOWNSHIP		Union	Union	Huston	Huston	Huston	Union	Huston	Huston	Union	Union
LATITUDE		13,600 ft. N 41°05'	14,900 ft. N 41°05'	4700 ft. N 41°10'	1800 ft. N 41°10'	10,600 ft. S 41°10'	13,550 ft. N 41°05'	3700 ft. N 41°10'	4600 ft. N 41°10'	10,050 ft. N 41°05'	12,200 ft. S 41°10'
LONGITUDE		9200 ft. E 78°40'	12,350 ft. E 78°40'	8750 ft. E 78°35'	7300 ft. E 78°35'	6400 ft. E 78°40'	11,600 ft. E 78°40'	10,900 ft. W 78°30'	10,500 ft. W 78°30'	7650 ft. E 78°40'	7,700 ft. E 78°40'
DATE COMPLETED		2-4-58	2-19-58	2-26-58	3-6-58	3-3-58	3-17-58	3-17-58	4-8-58	4-8-58	4-1-58
ELEVATION		1759	1866	1844	1793	1710	1865	1735	1709	1716	1835
TULLY		6725-	6692-6785	6612-6745	6589-	6710-	6677-	6435-	6403-6508	6550-	6737-
ONONDAGA	LIMESTONE	7359-	7380-	7255-	7229-	7309-	7323-	7089-	7033-	7190-	7322-
	CHERT	7376-	7392-	7279-	7245-	7321-	7337-		7056-	7207-	7340-
ORISKANY		7435-7456	7568-	7320-7335	7289-7308	7376-7400	7392-7407	7152-7166	7099-7116	7264-7278	7400-7425
HELDERBERG		7456-		7335-	7308-	7400-	7407-	7166-	7116-	7278-	7425-
TOTAL DEPTH		7457	7580	7337	7309	7405	7408	7168	7118	7280	7426
DEEPEST FORMATION REACHED		Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT		1712 Mcf AF RP 1650 psi 4 days	Salt water 20 gals / 1 hr. at 7579 Abandoned	4700 Mcf AF RP 2945 psi 20 hrs.	6851 Mcf AF RP 2260 psi 5 hrs.	1850 Mcf AF RP 1125 psi 72 hrs.	1600 Mcf AF RP 2140 psi 41 hrs.	830 Mcf AF RP 2646 psi 12 days	7038 Mcf AF RP 2510 psi 48 hrs.	106 Mcf AF RP 1025 psi 36 hrs.	1802 Mcf AF RP 710 psi 32 hrs

TABLE 15
SHEET 18

CLEARFIELD COUNTY

QUADRANGLE		Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER		126	127	128	129	130	131	132	133	134	135
NAME OF WELL		George Bloom 1	Helen D.S Gordon 5	W.M. Reiter 2	Pa. Tract 49 3	Pa. Tract 76 3	Emery Miller 3	John E. Hayes 2	Art Dufour 1	Green Glen 2	Baker Run Reserve 5
OPERATOR		John Fox	NYSNG Corp. (N621)	Godfrey L Cabot Inc.	NYSNG Corp (N631)	M L & H Co.	Devonian Gas & Oil Co.	NYSNG Corp (N623)	NYSNG Corp (N643)	M L & H Co.	F.C Deemer
TOWNSHIP		Union	Huston	Huston	Huston	Huston	Union	Brady	Brady	Huston	Union
LATITUDE		3200 ft. N 41°05'	2300 ft. N 41°10'	3550 ft. N 41°10'	3500 ft. N 41°10'	4300 ft. N 41°10'	13,800 ft. N 41°05'	100 ft. S 41°05'	2300 ft. S 41°05'	4500 ft. N 41°10'	2250 ft. S 41°10'
LONGITUDE		1500 ft. W 78°40'	4350 ft. E 78°35'	8350 ft. W 78°30'	8900 ft. W 78°30'	7800 ft. W 78°30'	1700 ft. E 78°40'	10,900 ft. W 78°40'	8200 ft. E 78°45'	3400 ft. W 78°35'	4600 ft. W 78°35'
DATE COMPLETED		4-17-58	4-21-58	3-14-58	5-3-58	5-6-58	5-14-58	5-21-58	5-29-58	5-29-58	7-26-58
ELEVATION		1665	1526	1803	1815	1763	1735	1487	1495	1625	1365
TULLY		6400-	6475-	6430-6545	6451-	6395-6511	6624-	6385-	6479-	6638-6725	6502-
ONONDAGA	LIMESTONE	7032-	7090-	7086-	7115-	7054-	7210-	7006-	7192-	7236-	7109-
	CHERT	7046-	7106-	7094-	7130-	7068-	7224-	7023-	7210-	7248-	7123-
ORISKANY		7106-7123	7153-7174	7137-7148	7165-7176	7108-7123	7286-7302	7095-7122	7267-7291	7370-	7169-7193
HELDERBERG		7123-	7174-	7148-	7176-	7123-	7302-	7122-	7291-		7193-
TOTAL DEPTH		7124	7175	7149	7178	7125	7303	7123	7292	7396	7240
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg
RESULT		3150 Mcf AF RP 2320 psi 24 hrs.	3755 Mcf AF RP 2540 psi 27 hrs.	3100 Mcf AF RP 3200 psi 60 hrs.	858 Mcf RP 3125 psi 18 hrs.	3221 Mcf AF RP 2233 psi 144 hrs.	18,500 Mcf AF RP 2150 psi 25 hrs.	1992 Mcf AF RP 3140 psi 24 hrs.	Salt water after frac. Abandoned	Salt water in Oriskany Abandoned	Show gas, SW in Oriskany Abandoned

TABLE 15
SHEET 19

CLEARFIELD COUNTY

QUADRANGLE		Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER		136	137	138	139	140	141	142	143	144	145
NAME OF WELL		Baker Run Reserve 6	Jas. Brundridge 1	Pa Tract 49 4	Pa. Tract 76 4	Wm. Kordysuasko 1	Pentz Estate 1	Helen D.S. Gordon 6	Pa. Tract 77 1	Baker Run Reserve 7	H.T. Shaffer 1
OPERATOR		F.C. Deemer	Godfrey L. Cabot, Inc.	N.Y.S.N.G. Corp. (N642)	M.L.&H. Co.	N.Y.S.N.G. Corp. (N647)	John Fox, et al.	N.Y.S.N.G. Corp (N641)	N.Y.S.N.G. Corp. (N639)	F.C. Deemer	Sam Jack, et al
TOWNSHIP		Huston	Huston	Huston	Huston	Brady	Union	Huston	Huston	Huston	Union
LATITUDE		2800 ft. S 41°10'	1600 ft. S 41°10'	100 ft. N 41°10'	9300 ft. N 41°10'	13,950 ft. S 41°05	15,400 ft. S 41°10'	800 ft. S 41°10'	1900 ft. S 41°10'	5850 ft. S 41°10'	3300 ft. N 41°05'
LONGITUDE		8450 ft. W 78°35'	12,600 ft. W 78°30'	11,000 ft. W 78°30'	10,900 ft. W 78°30'	1200 ft. E 78°45'	1900 ft. E 78°40'	1850 ft. E 78°35'	10,300 ft. W 78°30'	3750 ft. W 78°35	700 ft. W 78°40'
DATE COMPLETED		5-29-58	4-14-58	5-26-58	6-4-58	6-9-58	6-24-58	6-19-58	8-27-58	7-10-58	7-17-58
ELEVATION		1648	1838	1742	1490	1563	1640	1783	1828	1818	1682
TULLY		6862-	6420-6531	6344-	6260-6371	6467-	6585-	6767-	6372-	6745-	6410-
ONONDAGA	LIMESTONE	7477-	7094-	7004-	6892-	7099-	7178-	7452-	7036-	7369-	7065-
	CHERT	7486-	7104-	7019-	6908-	7114-	7193-	7470-	7052-	7382-	7075-
ORISKANY		7528-7550	7152-7160	7065-7074	6948-6972	7170-7190	7275-7291	7518-7541	7096-7102	7429-7447	7131-7152
HELDERBERG		7550-	7160-	7074-	6972-	7190-	7291-	7541-	7102-	7447-	7152-
TOTAL DEPTH		7590	7161	7075	6973	7191	7308	7543	7103	7448	7154
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT		2000 ft. salt water in hole Abandoned	80 Mcf AF Abandoned	1378 Mcf AF RP 1535 psi 6 days	12,800 Mcf AF RP 3700 psi 72 hrs.	1300 Mcf AF RP 2560 psi 40 hrs.	3216 Mcf AF RP 1460 psi 14 hrs.	2877 Mcf AF RP 2560 psi 23 hrs	48 Mcf AF RP 3070 psi 63 days Abandoned	3000 Mcf AF RP 1925 psi 26 hrs.	1700 Mcf AF RP 1740 psi 26 hrs.

TABLE 15
SHEET 20

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	146	147	148	149	150	151	152	153	154	155
NAME OF WELL	F.J. Cochran 1	Joel Horne, et al. 1	Pa. Tract 65 1	Pa. Tract 66 1	Green Glen 1-a	C.W. Rafferty 1	Baker Run Reserve 8	A. Polumbo 2	Pa. Tract 66 2	Helen D.S. Gordon 7
OPERATOR	NYSNG Corp. (N656)	NYSNG Corp. (N659)	NYSNG Corp. (N667)	NYSNG Corp. (N660)	Fairman Drilling Co	NYSNG Corp. (N669)	F.C. Deemer	NYSNG Corp. (N678)	NYSNG Corp. (N676)	NYSNG Corp (N673)
TOWNSHIP	Brady	Brady	Huston	Huston	Brady	Brady	Huston	Huston	Huston	Huston
LATITUDE	900 ft. S 41°05'	2150 ft. S 41°05'	10,650 ft. S 41°15'	7350 ft. S 41°15'	1250 ft. N 41°05'	10,550 ft. S 41°05'	9800 ft. S 41°10'	10,550 ft. S 41°15'	9400 ft. S 41°15'	4100 ft. N 41°10'
LONGITUDE	4850 ft. E 78°45'	7400 ft. E 78°45'	7550 ft. W 78°35'	6300 ft. W 78°35'	8300 ft. W 78°40'	1900 ft. E 78°45'	10,150 ft. W 78°45'	8950 ft. W 78°35'	6150 ft. W 78°35'	7600 ft. E 78°35'
DATE COMPLETED	10-18-58	8-14-58	8-19-58	8-25-58	9-25-58	9-24-58	11-1-58	10-21-58	11-5-58	11-5-58
ELEVATION	1669	1474	1581	1389	1508	1590	1725	1628	1377	1786
TULLY	6820-	6516-	6640-	6353-	6414-	6564-	6595-	6643-	6430-	6622-
ONONDAGA LIMESTONE	7426-	7125-	7236-	6936-	7014-	7193-	7473-	7227-	7032-	7252-
ONONDAGA CHERT	7441-	7139-	7256-	6964-	7026-	7207-	7482-	7249-	7050-	7269-
ORISKANY	7495-	7175-	7310-	7016-7030	7085-	7260-7283	7706-7730	7300-7329	7105-7132	7313-7334
HELDERBERG				7030-		7283-	7730-	7329-	7132-	7334-
TOTAL DEPTH	7530	7183	7320	7036	7109	7284	7760	7330	7133	7335
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	Salt water in Oriskany Abandoned	4055 Mcf AF RP 2760 psi 8 days	6501 Mcf AF RP 3703 psi 112 hrs. Discovery well Boone Mt Pool	311 Mcf AF RP 2071 psi 39 hrs.	2214 Mcf AF RP 2410 psi	504 Mcf AF RP 1685 psi 65 hrs.	No gas after frac Abandoned	2877 Mcf AF RP 3700 psi 64 hrs.	1174 Mcf AF RP 3770 psi 128 hrs.	2349 Mcf AF RP 1630 psi 88 hrs

TABLE 15
SHEET 21

CLEARFIELD COUNTY

QUADRANGLE		Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER		156	157	158	159	160	161	162	163	164	165
NAME OF WELL		Underhill 3	Pa. Tract 66 3	A. Palumbo 3	New Showmut Mining Co. 2 Wt 5673	W & W. Overturf 1	Baker Run Reserve 9	Q G Lucore 1	Helen D. S Gordon 9	Helen D. S Gordon 8	Pa. Tract 76 6
OPERATOR		Devonian Gas & Oil Co.	NYSNG Corp. (N677)	NYSNG Corp. (N684)	Devonian Gas & Oil Co.	H.S. McKay, et al.	F.C. Deemer	NYSNG Corp (N689)	NYSNG Corp (N691)	NYSNG Corp. (N683)	M L & H Co.
TOWNSHIP		Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston
LATITUDE		9800 ft. S 41°15'	6300 ft. S 41°15'	13,650 ft. S 41°15'	8000 ft. N 41°10'	8600 ft. S 41°15'	9850 ft. S 41°10'	6000 ft. S 41°15'	9100 ft. N. 41°10'	7000 ft. N 41°10'	8200 ft. N 41°10'
LONGITUDE		4100 ft. W 78°30'	3800 ft. W 78°35'	10,900 ft. W 78°35'	9600 ft. E 78°45'	5200 ft. W 78°35'	7250 ft. W 78°35'	300 ft. W 78°35'	7500 ft. E 78°35'	7900 ft. E 78°35'	9300 ft. E 78°35'
DATE COMPLETED		11-28-58	11-24-58	12-6-58	12-17-58	2-19-58	12-19-58	1-8-59	2-6-59	2-15-59	2-5-59
ELEVATION		1890	1619	1372	1698	1362	1785	1505	1631	1709	1720
TULLY		6553-	6607-	6475-	6530-	6425-	6652-	6580-6695	6577-	6599-	6560-6670
ONONDAGA	LIMESTONE	7183-	7196-	7072-	7152-	7003-	7384-	7188-	7268-	7225-	7222-
	CHERT	7206-	7213-	7087-	7170-	7019-	7400-	7206-	7287-	7238-	7248-
ORISKANY		7248-7279	7263-7293	7133-7163	7215-7235	7073-	7528-	7251-	7333-7365	7278-7302	7295-7320
HELDERBERG		7279-	7293-	7163-	7235-				7365-	7302-	7320-
TOTAL DEPTH		7280	7294	7164	7237	7098	7548	7285	7366	7303	7323
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Oriskany	Oriskany	Helderberg	Helderberg	Helderberg
RESULT		7107 Mcf AF RP 3850 psi 12 hrs.	1608 Mcf AF RP 3282 psi 24 hrs.	5,305 Mcf AF RP 3815 psi 46 hrs.	12,105 Mcf AF RP 2450 psi 22 hrs.	5600 Mcf AF RP 3815 psi 4 days	Salt water in Oriskany Abandoned	14,534 Mcf RP 3850 psi 4 days Did not frac.	582 Mcf AF RP 3405 psi 72 hrs.	2,117 Mcf AF RP 1800 psi 19 hrs.	720 Mcf AF RP 1920 psi BF 67 hrs.

TABLE 15
SHEET 22

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	166	167	168	169	170	171	172	173	174	175
NAME OF WELL	Jos Overturf 1	Pa Tract 66 4	New Shawmut Mining Co. 1 Wt.5067	A.J. Palumbo 1	R.J. Anderson 1	Lavira Crawford 1	James Parks 1	R.J. Anderson 2	Pentz Estate 2	Pentz Estate 3
OPERATOR	S W Jack	N Y S N G Corp. N696	Devonian Gas & Oil Co.	N Y S N G Corp (N694)	James Drilling Co	N Y S N G Corp (N697)	Fairman Brothers	James Drilling Co.	Rockton Drilling Co	Rockton Drilling Co
TOWNSHIP	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Union	Union
LATITUDE	8100 ft S 41°15'	8500 ft S 41°15'	12,600 ft S 41°15'	10,150 ft S 41°15'	3400 ft S 41°15'	5300 ft S 41°15'	5400 ft S 41°15'	4350 ft S 41°15'	13,200 ft N 41°05'	12,000 ft N 41°05'
LONGITUDE	2800 ft W 78°35'	2250 ft W 78°35'	6400 ft W 78°30'	5250 ft W 78°30'	2800 ft E 78°35'	1600 ft E 78°35'	300 ft E 78°35'	3000 ft E 78°35'	1100 ft E 78°40'	800 ft W 78°40'
DATE COMPLETED	2-26-59	2-27-59	4-23-59	3-24-59	3-21-59	3-30-59	3-30-59	4-2-59	4-3-59	4-24-59
ELEVATION	1536	1471	1599	1517 DF	1679	1606	1596	1657	1731 DF	1733 DF
TULLY	6614-	6597-	6375-6485	6304-	6665-	6620-6749	6641-	6693-	6645-	6600-
ONONDAGA LIMESTONE	7200-	7194-	6993-	6989-	7261-	7223-	7234-	7300-	7262-	7215-
ONONDAGA CHERT	7216-	7210-	7014-	7006-	7277-	7240-	7252-	7323-		7226-
ORISKANY	7277-7300	7258-7291	7057-		7323-	7287-7318	7298-	7371-	7341-7361	7291-7311
HELDERBERG	7300-	7291-				7318-			7361-	7311-
TOTAL DEPTH	7312	7294	7077	7041	7351	7320	7328	7401	7363	7331
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Oriskany	Onondaga	Oriskany	Helderberg	Oriskany	Oriskany	Helderberg	Helderberg
RESULT	1,500 Mcf AF RP 3550 psi 5 days	Salt water in Oriskany Abandoned	19,455 Mcf AF RP 3850 psi BF 7 hrs	Sand 7031-7039 9690 Mcf AF RP 3850 psi BF	7107 Mcf AF RP 3800 psi 56 hrs	15,313 Mcf AF RP 3380 psi 26 days	7800 Mcf AF RP 1750 psi 12 hrs	12,600 Mcf AF RP 3800 psi 48 hrs	6100 Mcf AF RP 1550 psi 6 hrs.	7600 Mcf AF RP 1660 psi 14 hrs

TABLE 15
SHEET 23

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	176	177	178	179	180	181	182	183	184	185
NAME OF WELL	A.J. Palumbo, et al. 5	A.J. Palumbo 2	A.J. Palumbo 4	New Showmut Mining Co. 1 Wt 5674	A.V. Crawford 1	A.J. Palumbo 7	Hylon Lewis 1	G.E. Whitmore 1	John R. Thompson 1	A.J. Palumbo 3
OPERATOR	NYSNG Corp. (N698)	NYSNG Corp. (N704)	NYSNG Corp. (N687)	Devonian Gas & Oil Co.	Sam Jack	NYSNG Corp. (N708)	Devonian Gas & Oil Co.	NYSNG (N717) and Devonian G & O	James Drilling Co.	NYSNG Corp (N714)
TOWNSHIP	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston
LATITUDE	1300 ft. S 41°15'	16,700 ft. S 41°15'	14,850 ft. S 41°15'	11,200 ft. S 41°10'	6100 ft. S 41°15'	1700 ft. S 41°15'	9700 ft. N 41°10'	16,200 ft. S 41°15'	3600 ft. S 41°15'	6800 ft. S 41°15'
LONGITUDE	7000 ft. E 78°35'	12,400 ft. W 78°30'	9200 ft. E 78°40'	9150 ft. W 78°30'	1100 ft. E 78°35'	10,000 ft. E 78°35'	7300 ft. E 78°35'	7500 ft. E 78°40'	2200 ft. E 78°35'	5450 ft. W 78°30'
DATE COMPLETED	4-11-59	4-21-59	4-22-59	6-29-59	5-15-59	5-13-59	5-2-59	5-15-59	5-14-59	5-20-59
ELEVATION	1725 DF	1583	1563	1770	1583	1491 DF	1630	1670	1695 DF	1671
TULLY	6649-6764	6461-	6606-	6528-6628	6665-	6449-6560	6560-	6695-	6655-	6546-
ONONDAGA LIMESTONE	7273-	7067-	7208-	7139-	7275-	7052-	7264-	7288-	7256-	7181-
ONONDAGA CHERT	7291-	7080-	7225-	7160-		7069-		7300-	7275-	7195-
ORISKANY	7338-7368	7122-7147	7272-7301	7203-7227	7336-	7117-7145	7326-	7347-7379	7328-	7238-7271
HELDERBERG	7368-	7147-	7301-	7227-		7145-		7379-		7271-
TOTAL DEPTH	7369	7153	7302	7228	7346	7146	7333	7380	7356	7272
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Oriskany	Helderberg	Oriskany	Helderberg
RESULT	9,696 Mcf AF RP 3875 psi 17 days	37,500 Mcf AF RP 3420 psi 20 hrs.	2312 Mcf AF RP 3790 psi BF 65 hrs.	18,500 Mcf AF RP 2750 psi BF 18 hrs.	1900 ft. SW 12 hrs. Completed as shallow gas well	3373 Mcf AF RP 3645 psi 46 hrs	12,000 Mcf AF RP 3720 psi 37 hrs.	16,800 Mcf AF PR 3900 psi 72 hrs.	3456 Mcf AF RP 2900 psi 72 hrs.	8660 Mcf AF RP 3700 psi 48 hrs

TABLE 15
SHEET 24

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	186	187	188	189	190	191	192	193	194	195
NAME OF WELL	Green Glen 1	M.W. Bundy 2	New Shawmut Mining Co. 2 Wt. 5674	Pa. Tract 76 5	J.A. Miller 1	Helen D.S. Gordon 11	Pa. Tract 76 8	Green Glen 2	Hylan Lewis 2	A.J. Polumbo 6
OPERATOR	Lee Minter, et al	James Drilling Co	Devonian Gas & Oil Co., et al	M L & H Co	H.S. McKay, et al	NYSNG Corp (N727)	M L & H Co	Lee Minter, et al	Devonian Gas & Oil Co., et al	NYSNG Corp (N721)
TOWNSHIP	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston
LATITUDE	6200 ft. N 41°10'	3850 ft. S 41°15'	13,850 ft. N 41°10'	12,800 ft. N 41°10'	5350 ft. S 41°15'	7200 ft. N 41°10'	11,300 ft. N 41°10'	10,100 ft. N 41°10'	9600 ft. N 41°10'	15,100 ft. S 41°15'
LONGITUDE	1200 ft. E 78°35'	3900 ft. E 78°35'	10,900 ft. W 78°30'	10,700 ft. E 78°35'	2700 ft. E 78°35'	1700 ft. E 78°35'	9200 ft. E 78°35'	5400 ft. E. 78°35'	6300 ft. E 78°35'	9400 ft. E 78°35'
DATE COMPLETED	5-31-59	6-4-59	6-8-59	6-17-59	6-16-59	7-8-59	7-9-59	7-13-59	7-12-59	7-12-59
ELEVATION	1692	1640 DF	1445	1609 DF	1624 DF	1606 DF	1348	1470 TC	1452 DF	1307
TULLY	6590-6697	6650-	6275-6367	6447-	6665-	6498-	6220-6340	6392-6505	6345-6445	6258-
ONONDAGA LIMESTONE	7172-	7250-	6879-	7061-	7270-	7085-	6918-	6991-	6943-	6882-
ONONDAGA CHERT	7184-	7270-	6899-	7081-	7288-	7101-	6939-	7001-	6960-	6898-
ORISKANY	7232-	7312-	6944-6973	7116-7149	7333-7362	7147-	6984-7010	7061-7077	7008-	6944-6974
HELDERBERG			6973-	7149-	7362-		7010-	7077-		6974-
TOTAL DEPTH	7236	7342	6974	7150	7365	7164	7012	7078	7028	6975
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Helderberg	Oriskany	Helderberg
RESULT	Est 45,000 Mcf natural RP 3900 psi 24 hrs.	8,800 Mcf AF RP 3000 psi 24 hrs.	18,000 Mcf AF RP 3125 psi 24 hrs.	14,700 Mcf AF RP 2345 psi 25 hrs.	3300 Mcf AF RP 1450 psi 24 hrs.	70,000 Mcf natural RP 3498 psi 47 hrs	3890 Mcf AF RP 2750 psi 24 hrs.	12,433 Mcf AF RP 3560 psi 24 hrs.	6625 Mcf AF RP 3680 psi 48 hrs.	7500 Mcf AF RP 3070 psi 96 hrs

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TABLE 15
SHEET 25

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	196	197	198	199	200	201	202	203	205	206
NAME OF WELL	Pa Tract 86 1	Pa Tract 80 1	Harvey Murray 1	Frank Sherwood 1	Pa Tract 76 7	Pa Tract 65 3	Underhill 4 Wt 5065	Weather 1 (Hylan Lewis I)	Anna M Shutters 1	A J Palumbo 8
OPERATOR	NYSNG Corp. (N723)	NYSNG Corp (N719)	NYSNG Corp (N685)	Lee Minter, et al.	M L & H Co.	NYSNG Corp (N726)	Devonian Gas & Oil Co.	Devonian Gas & Oil Co, et al.	James Drilling Co.	NYSNG Corp (N729)
TOWNSHIP	Huston	Huston	Sandy	Sandy	Huston	Huston	Huston	Huston	Huston	Huston
LATITUDE	11,800 ft. S 41°15'	3950 ft. S 41°15'	3500 ft. N 41°05'	10,600 ft. N 41°10'	13,000 ft. N 41°10'	17,350 ft. S 41°15'	6500 ft. S 41°15'	11,900 ft. N 41°10	2500 ft. S 41°15'	9200 ft. S 41°15'
LONGITUDE	12,000 ft. W 78°30'	1550 ft. W 78°35'	9300 ft. W 78°40'	3000 ft. E 78°40	10,700 ft. W 78°30'	5600 ft. E 78°40'	4500 ft. W 78°30'	5000 ft. E 78°40'	9400 ft. E 78°35	10,800 ft. E 78°35'
DATE COMPLETED	7-13-59	10-7-59	5-5-59	7-27-59	7-17-59	7-31-59	8-8-59	8-19-59	8-28-59	8-29-59
ELEVATION	1697	1357	1637 DF	1778 DF	1588	1581 DF	1715 DF	1645	1327 DF	1680 DF
TULLY	6635-	6292-	6625-	6780-	6380-6520	6599-	6525-6630	6676-	6295-	6660-6768
ONONDAGA LIMESTONE	7248-	6894-	7236-	7355-	7217-	7190-	7136-	7247-	6899-	7276-
ONONDAGA CHERT	7273-	6910-	7247-	7370-	7233-	7208-	7152-	7261-	6920-	7292-
ORISKANY	7312-7342	6958-6982	7303-7326	7430-	7270-7305	7258-7289	7193-	7322-	6958-	7331-7362
HELDERBERG	7342-	6982-	7326-		7305-	7289-				7362-
TOTAL DEPTH	7343	6983	7329	7455	7306	7290	7218	7351	6988	7363
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Helderberg	Oriskany	Oriskany	Oriskany	Helderberg
RESULT	13,357 Mcf AF RP 3310 psi 48 hrs.	33 Mcf AF 600 ft SW Abandoned	1387 Mcf AF RP 2080 psi 5 days 100 gal. SW/hr. Abandoned	8992 Mcf AF RP 3760 psi 24 hrs.	109 Mcf AF RP 1070 psi 48 hrs. Abandoned	13,701 Mcf AF RP 3800 psi BF 48 hrs.	4000 Mcf AF RP 3000 psi 55 hrs.	10,500 Mcf AF RP 3800 psi 48 hrs.	4100 Mcf AF RP 3070 psi BF 72 hrs.	10,165 Mcf AF RP 3340 psi BF 64 hrs.

TABLE 15
SHEET 26

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	207	208	209	210	211	212	213	214	215	216
NAME OF WELL	Green Glen 3	Helen D.S. Gordon 12	Mary E. Gary 1	Helen D.S. Gordon 10	H. H. Bundy 1	A. Malloney 1	L. De Sanders 1	A.J. Palumbo 4	M.D. Luchuck 1	A.J. Palumbo 9
OPERATOR	Lee Minter, et al.	NYSNG Corp. (N731)	NYSNG Corp. (N722)	NYSNG Corp (N725)	Fairman Drilling Co.	Brunt, et al.	NYSNG Corp. (N732)	NYSNG Corp. (N718)	James Drilling Co.	NYSNG Corp N734
TOWNSHIP	Huston	Huston	Huston	Huston	Sandy	Sandy	Sandy	Huston	Huston	Huston
LATITUDE	15,300 ft. S 41°15'	8600 ft. N 41°10'	10,600 ft. N 41°10'	9100 ft. N 41°10'	8400 ft. N 41°10'	9200 ft. N 41°10'	11,200 ft. N 41°10'	8700 ft. S 41°15'	3700 ft. S 41°15'	6600 ft. S 41°15'
LONGITUDE	8900 ft. E 78°35'	3000 ft. E 78°35'	3600 ft. E 78°35'	5500 ft. E 78°35'	400 ft. E 78°40'	2200 ft. E 78°40'	3000 ft. E 78°40'	7750 ft. W 78°30'	9000 ft. E 78°35	10,700 ft. W 78°30'
DATE COMPLETED	8-27-59	9-4-59	8-24-59	1-12-59	9-15-59	9-26-59	9-25-59	9-27-59	9-28-59	10-9-59
ELEVATION	1500	1472 DF	1699 DF	1673 DF	1636	1668	1736 DF	1347	1278 DF	1728 DF
TULLY	6425-6537	6370-	6695-	6595-	6664-	6706-	6717-	6230-6345	6320-6423	6665-6785
ONONDAGA — LIMESTONE	7025-	6959-	7344-	7257-	7236-	7271-	7299-	6852-	6920-	7276-
ONONDAGA — CHERT	7046-	6975-	7362-	7275-	7252-	7290-	7315-	6869-	6935-	7294-
ORISKANY	7097-	7018-7049	7410-	7373-	7304-	7343-7374	7370-7402	6909-6942	6987-	7337-7367
HELDERBERG		7049-				7374-	7402-	6942-		7367-
TOTAL DEPTH	7112	7050	7415	7393	7333	7375	7403	6943	6994	7368
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Oriskany	Oriskany	Oriskany	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg
RESULT	1500 Mcf AF RP 2500 psi 12 hrs.	17,500 Mcf RP 2065 psi 10 days Did not frac.	1233 Mcf AF RP 3245 psi 47 hrs.	60 Mcf AF RP 1080 psi 10 hrs. Abandoned	11,000 Mcf AF RP 3070 psi 72 hrs.	10,000 Mcf AF RP 3950 psi 24 hrs	7927 Mcf AF RP 3570 psi BF 36 hrs.	18,067 Mcf AF RP 2290 psi 19 hrs.	12,228 Mcf AF RP 3150 psi	15,313 Mcf AF RP 2980 psi 44 hrs

TABLE 15
SHEET 27

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield	Penfield
QUADRANGLE NUMBER	217	218	219	220	221	222	223	224	225	226
NAME OF WELL	Gordon Gallagher 1	Du Bois National Bank 1	Geo. J Baummer 1	Pa Tract 86 2	C.W Spicher 1	Pa Game Lands Tract 93 1	Jas Thompson 1	A.J. Palumbo 10	Green Glen 1-b	Patsy Georgino 1
OPERATOR	S W Jack	Harry Brunt, et al	NYSNG Corp (N737)	NYSNG Corp (N733)	NYSNG Corp (N736)	Fairman Drilling Co.	James Drilling Co.	NYSNG Corp (N738)	Fairman Drilling Co.	NYSNG Corp (N739)
TOWNSHIP	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Huston	Union	Huston
LATITUDE	1200 ft N 41°10'	10,400 ft. N 41°10'	4500 ft. S 41°15'	10,800 ft S 41°15'	10,700 ft. N 41°10'	2700 ft. N 41°10'	12900 ft. S 41°10'	4150 ft. S 41°15'	9900 ft. N 41°15'	3700 ft. S 41°15'
LONGITUDE	4600 ft W 78°35'	2300 ft. E 78°35'	3250 ft. W 78°30'	9100 ft. E 78°35'	3800 ft E 78°40'	2800 ft. W 78°35'	8700 ft E 78°35'	10,400 ft. W 78°30'	2100 ft W 78°40'	9300 ft. E 78°35'
DATE COMPLETED	10-21-59	10-27-59	10-24-59	11-2-59	11-9-59	11-16-59	11-19-59	11-14-59	11-17-59	11-28-59
ELEVATION	1397 DF	1481 DF	1716 DF	1520 DF	1620 DF	1656	1428 DF	1217 DF	1713	1219 DF
TULLY	6415-	6500-	6535-	6505-	6649-	6648-	6440-	6191-6299	6625-	6217-
ONONDAGA LIMESTONE	7008-	7102-	7167-	7127-	7220-	7242-	7059-	6800-	7258-	6816-
ONONDAGA CHERT	7020-	7118-	7184-	7143-	7236-	7257-	7083-	6818-	7280-	6834-
ORISKANY	7080-	7166-	7225-7258	7182-7213	7290-7319	7305-	7127-	6855-6890	7340-	6880-6914
HELDERBERG			7258-	7213-	7319-			6890-		6914-
TOTAL DEPTH	7101	7181	7260	7214	7320	7322	7132	6892	7365	6915
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Helderberg	Helderberg	Helderberg	Oriskany	Oriskany	Helderberg	Oriskany	Helderberg
RESULT	42 Mcf AF Abandoned	5930 Mcf AF RP 2735 psi 45 hrs	3435 Mcf AF RP 3680 psi 168 hrs	4332 Mcf AF RP 2460 psi 48 hrs	7504 Mcf AF RP 3230 psi BF 83 hrs	2250 Mcf AF RP 1560 psi 24 hrs	5440 Mcf AF RP 2460 psi	5731 Mcf AF RP 3350 psi BF 45 hrs	2320 Mcf AF RP 1680 psi 48 hrs	15920 Mcf AF RP 2235 psi 72 hrs

TABLE 15
SHEET 28

CLEARFIELD COUNTY

QUADRANGLE	Penfield	Penfield	Penfield	Philipsburg	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney
QUADRANGLE NUMBER	227	228	229	3	8	9	10	11	12	13
NAME OF WELL	Green Glen 4	Mary E Gory 2	New Shawmut Mining Co. 3 Wt. 5067	Pa Game Lands Tract 78 1	Daniel Fryer 1	A C Hopkins 1	James Korb 1	G Reed 1	B W Irwin 1	Craig McGee 1
OPERATOR	Lee Minter, et al.	N Y S N G Corp (N740)	Devonian Gas & Oil Co	Parsons Brothers	F C Deemer	F C Deemer	F C Deemer	Fairman Drilling Co	F C Deemer	F C Deemer
TOWNSHIP	Huston	Huston	Huston	Graham	Bell	Bell	Bell	Bell	Bell	Bell
LATITUDE	6600 ft. N 41°10'	11,800 ft. N 41°10'	13,300 ft. S 41°15'	1200 ft. S 41°00'	7000 ft. S 41°00'	11,000 ft. S 41°00'	13,400 ft. S 41°00'	6200 ft. N 40°55'	9100 ft. N 40°55'	11,200 ft. N 40°55'
LONGITUDE	1100 ft. W 78°35'	2900 ft. E 78°35'	10,200 ft. E 78°35'	1100 ft. E 78°15'	1500 ft. W 78°45'	8700 ft. W 78°45'	3900 ft. W 78°45'	8400 ft. E 78°50'	9000 ft. E 78°50'	4500 ft. W 78°45'
DATE COMPLETED	12-8-59	12-22-59	12-30-59	12-11-57	9-6-55	7-7-55	10-26-55	11-9-55	8-30-56	2-29-56
ELEVATION	1350	1648 DF	1400	1681	1964	1679	2118	1986	2018	2227
TULLY	6398-6503	6696-	6321-	7043-	6685-	6480-	6899-	6745-6910	6925-7100	7052-7234
ONONDAGA LIMESTONE	6998-	7306-	6934-	7990-	7410-	7141-	7610-	7444-	7653-	7803-
ONONDAGA CHERT	7013-	7322-	6950-	8014-						
ORISKANY	7067-	7368-	7000-	8032-8045	7482-7487 Shriver 7487-	7214-7220 Shriver 7220-	7685-	7532-7535	7745-	7892-7896
HELDERBERG				8045-				7535-		7896-
TOTAL DEPTH	7081	7378	7025	8085	7700	7355	7810	7624	8230	8048
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Helderberg	Keyser?	Helderberg	Helderberg	Helderberg	Salina	Helderberg
RESULT	2050 Mcf AF RP 1475 psi 25 hrs	2491 Mcf AF RP 1710 psi 26 hrs	2500 Mcf AF RP 1600 psi 48 hrs	Dry Abandoned	2500 Mcf AF RP 3820 psi 48 hrs	3300 Mcf AF RP 3500 psi 24 hrs	3400 Mcf AF	1200 Mcf AF	540 Mcf AF	700 Mcf AF and acidizing RP 3340 psi 96 hrs

TABLE 15
SHEET 29

CLEARFIELD COUNTY

QUADRANGLE		Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney					
QUADRANGLE NUMBER		14	15	16	32	33					
NAME OF WELL		John C. Kann 1	Shively 1	McAninch (P. Kiser-J. Conti) 1	B. W. Irwin 2	Slimmer 8					
OPERATOR		N.Y.S.N.G. Corp (N495)	F.C. Deemer	F.C. Deemer	F.C. Deemer	F.C. Deemer					
TOWNSHIP		Bell	Bell	Bell	Bell	Bell					
LATITUDE		7400 ft. N 40°55'	6450 ft. S 41°00'	16,000 ft. S. 41°00'	10,000 ft. N 40°55'	7850 ft. S 41°00'					
LONGITUDE		8400 ft. W 78°45'	6400 ft. W 78°45'	9500 ft. W 78°45'	8250 ft. W 78°45'	9500 ft. E 78°50'					
DATE COMPLETED		10-15-56	1-19-57	8-27-57	2-2-59	3-9-59					
ELEVATION		2091 TC	1780	1771	2059	1460					
TULLY		6773-6943	6649-	6652-	6805-	6408-					
ONONDAGA	LIMESTONE	7488-	7362-	7374-	7512-	7085-					
	CHERT	7502-			7526-	7099-					
ORISKANY		7560-	7437-7444 Shriver 7444-	7482-7487 Shriver 7487-	7588-7596	7164-7177					
HELDERBERG					7596-	7177-					
TOTAL DEPTH		7572	7571	7557	7605	7228					
DEEPEST FORMATION REACHED		Oriskany	Helderberg	Helderberg	Helderberg	Helderberg					
RESULT		169 Mcf AF RP 2180 psi 45 hrs	150 Mcf AF RP 3600 psi 5 days	200 Mcf AF RP 3500 psi Abandoned	1712 Mcf RP 3660 psi 36 hrs Did not frac.	100 Mcf AF and much SW Abandoned					

TABLE 15
SHEET 30

CLINTON COUNTY

QUADRANGLE	Renovo East	Renovo East	Renovo East	Renovo East	Renovo West	Renovo West	Renovo West	Renovo West	Renovo West	Renovo West
QUADRANGLE NUMBER	9	10	11	12	191	192	193	194	195	196
NAME OF WELL	Pa. Tract 15 7	Pa. Tract 15 8	Pa. Tract 46 1	Pa. Tract 46 2	Pa. Tract 3 4	D. A. Doebler 4	Pa Tract 23 5	Pa. Tract 57 1	Pa Tract 14 10	Pa. Tract 14 11
OPERATOR	NYSNG Corp (N-444)	NYSNG Corp (N-448)	NYSNG Corp (N-452)	NYSNG Corp (N-473)	Delta Drilling Co.	Charles Sample	Post Publishing Co	NYSNG Corp. (N-469)	NYSNG Corp.	NYSNG Corp. (N-504)
TOWNSHIP	Chapman	Chapman	Chapman	Chapman	Leidy	Leidy	Leidy	Chapman	Leidy	Leidy
LATITUDE	8450 ft. S 41° 30'	10,000 ft. S. 41° 30'	10,400 ft. S. 41° 30'	10,500 ft. S. 41° 30'	9700 ft. N 41° 20'	12,800 ft. N. 41° 20'	950 ft. N. 41° 25'	13,300 ft. N. 41° 25'	8200 ft. N. 41° 25'	10,600 ft. N 41° 25'
LONGITUDE	1950 ft. E. 77° 45'	50 ft. E. 77° 45'	1900 ft. E. 77° 45'	5800 ft. E 77° 45'	7300 ft. W. 77° 55'	3750 ft. W. 77° 55'	5400 ft. E. 77° 50'	2450 ft. W. 77° 45'	9000 ft. W. 77° 45'	11,300 ft. W 77° 45'
DATE COMPLETED	3 - 7 - 55	3 - 31 - 55	8 - 13 - 55	12 - 28 - 55	1 - 4 - 55	1 - 13 - 55	5 - 16 - 55	12 - 6 - 55	9 - 7 - 56	10 - 26 - 56
ELEVATION	1791	1780	1707	1639	2072	843	1808	1597	1897	1950
TULLY	5834 - 5931	5815 - 5910	5742 -	5721 -	6614 -	5283 -	6190 -	5750 - 5900	6159 -	6172 - 6280
ONONDAGA	6674 -	6635 -	6659 -	6579 -	7342 -	6233 -	7025 -	6642 -	6986 -	7039 -
ORISKANY	6699 -	6662 - Gas at 6664	6683 - Gas at 6685	6603 - 6646	7360 - Gas, 7363 - 7365	6263 -	7044 - 7079	6667 - 6710 Gas at 6669	7009 - 7048 Gas at 7010	7054 - 7105
HELDERBERG				6646 -			7079 -	6710 -	7048 -	7105
TOTAL DEPTH	6709	6664	6691	6651	7370	6267	7107	6711	7071	7108
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	45,000 Mcf gas RP 4030 psi 24 hrs.	50,000 Mcf gas RP 3520 psi 27 hrs.	19,545 Mcf gas RP 3400 psi 40 hrs.	731 Mcf gas RP 2780 psi 6 days	14,300 Mcf gas RP 747 psi 12 ½ hrs.	Dry	Dry	1186 Mcf gas RP 3800 psi 59 hrs.	2034 Mcf gas AS RP 3870 psi 96 hrs.	Show of gas RP 5 ½ psi 12 days Abandoned

TABLE 15
SHEET 31

CLINTON COUNTY

QUADRANGLE	Renovo West	Renovo West	Renovo West		
QUADRANGLE NUMBER	197	198	199		
NAME OF WELL	Pa. Tract 15 9	Pa. Tract 15 10	Geo A. Calhoun 2		
OPERATOR	NYSNG Corp (N-476)	NYSNG Corp (N-488)	NYSNG Corp (N-570)		
TOWNSHIP	Chapman	Leidy	Leidy		
LATITUDE	11,350 ft S 41° 30'	15,700 ft S 41° 30'	7000 ft. S 41° 25'		
LONGITUDE	1600 ft. W. 77° 45'	6750 ft. W. 77° 45'	4100 ft. E 77° 55'		
DATE COMPLETED	6 - 4 - 56	12 - 22 - 56	8 - 17 - 57		
ELEVATION	1590	1705	1490		
TULLY	5655 -	5960 -	5462 - 5580		
ONONDAGA	6525 -	6849 -	6277 - 6291		
ORISKANY	6550 - 6605 5 G	6890 - 6952 36 Mcf gas	6291 - 6328 Gas at 6293		
HELDERBERG	6605 -	6952 -	6328 -		
TOTAL DEPTH	6608	6955	6331		
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Helderberg		
RESULT	148 Mcf gas, AF R.P 1660 psi 64 hrs Salt water Abandoned	12 Mcf gas, AF R.P 2150 psi 36 days Abandoned	4 Mcf gas, AF R.P 61 psi 11 hrs Salt water rose 560 ft. Abandoned		

COLUMBIA COUNTY

QUADRANGLE	Catawissa	
QUADRANGLE NUMBER	1	
NAME OF WELL	Knarr 1	
OPERATOR	Farmers Gas & Oil Co	
TOWNSHIP	Locust	
LATITUDE	11,500 ft. S 40° 55'	
LONGITUDE	3100 ft E 76° 25'	
DATE COMPLETED	1 - 12 - 57	
ELEVATION	890	
TULLY	1548 - 1701	
ONONDAGA	6195 - 6460	
ORISKANY	Shriver only 6460 - 6495	
HELDERBERG	6495 - 6755	
KEYSER	6755 - 7032	
TONOLOWAY	7032 -	
TOTAL DEPTH	7445	
DEEPEST FORMATION REACHED	Tonoloway	
RESULT	Faulting in Mid. Devonian Abandoned	

TABLE 15
SHEET 32

CRAWFORD COUNTY

QUADRANGLE	Cambridge Springs	Cambridge Springs	Corry	Girard	Girard	Girard	Girard	Girard	Girard	Girard
QUADRANGLE NUMBER	5	7	25	22	23	24	25	26	27	32
NAME OF WELL	Griffith 2	Owczykowsky 1	Raymond Halfast 1	Indian Spring 1	Davis 1	Henry Rippert 1	Louis Forro, Jr. 1	Harry J. Wigand 1	Shadeland 1	Conneaut Valley Farms 1
OPERATOR	Albert Zellsman et al	Jack Morrison et al	Simpson et al	George Hall et al	Howard Vinopol et al	Felmont Oil Corp	Felmont Oil Corp.	Felmont Oil Corp	Imperial Oil Co. (Pgh)	Pa. Gas Co No 1572
TOWNSHIP	Cambridge	Richmond	Sparta	Spring	Beaver	Spring	Beaver	Beaver	Spring	Spring
LATITUDE	15,500 ft. S. 41° 50'	1800 ft. N 41° 45'	600 ft. N 41° 50'	9700 ft N 41° 45'	4400 ft S 41° 50'	2500 ft N 41° 55'	4100 ft N 41° 45'	6100 ft N 41° 45'	5500 ft S 41° 50'	5200 ft N 41° 50'
LONGITUDE	200 ft W 80° 05'	500 ft W 80° 00'	2200 ft E 79° 40'	7800 ft W 80° 20'	8400 ft E 80° 30'	10,100 ft W 80° 20'	2500 ft W 80° 30'	4500 ft W 80° 30'	9300 ft E 80° 25'	5300 ft E 80° 25'
DATE COMPLETED	7 - 13 - 56	8 - 2 - 57	11 - 23 - 56	9 - 11 - 57	1 - 23 - 58	1 - 16 - 58	1 - 14 - 58	8 - 21 - 58	9 - 19 - 58	9 - 9 - 59
ELEVATION	1260	1372	1523	1074 DF	1007	1103	1148	1131	932	983 DF
TULLY	2565 -	2852 - 2920	3145 -	2187 - 2222	1950 - 1962	2071 -				1952 - 1984
ONONDAGA	2770 - Chert, 2925 -	3057 -	3392 -	2355 - SG at 2495	2100 - SO	2259 - Chert, 2409 -	2318 - Chert, 2450 -	2286 -	2124 -	2122 -
ORISKANY	Horizon, 2956	3208 ± - SG, SO at 3208	absent	2551 - SG, HFW at 2551	2374 - SO	2507 - 2519 SW at 2508 800 ft in 8 hrs	2533 - 2555	2503 - 2513 25 Mcf at 2509	2365 - 2371	2395 - 2418 SW at 2402
BASS ISLAND	2956 - 3026	3209 ± -	3555 -	2559 -		2519 -	2555 -	2513 -	2371 -	2418 -
SALINA	3026 -	3260 ± -	3607 ± -	2600 ± - SW at 2838 1st salt 2964-82		2560 - 1st salt, 2885 -	2621 - 1st salt, 2810-39	2680 ± - 1st salt, 2776 -	2414 -	2450 ± - 1st salt, 2852
GUELPH - LOCKPORT				3245 - 3510 SG, SW 3355-57 Little Lime, 3581-91		3125 ± - Black water at 3236 Little Lime, 3464-76	3220 ± - Black water at 3373 Little Lime, 3574-90	3190 ± - Black water at 3340	3001 - SG at 3155 SW at 3180	2890 ± -
GRIMSBY				3625 - Gas, SO, 3665-90		3498 ± - 24 Mcf gas at 3528 SO at 3570	3613 - SG at 3657 SO at 3667, 3693	3570 - SG 3599-3601 59 Mcf 3620-24	3375 ± - SG	3345 ± - Gas, 3398-3407
WHIRLPOOL						3665 ± -	3790 - 3792	3738 -	3550 ± -	
QUEENSTON						3675 ± -	3792 -	3753 -	3560 ± -	3509 -
TOTAL DEPTH	3060	3365	3630	3690	2377	3697	3885	3853	3565	3537
DEEPEST FORMATION REACHED	Salina	Salina	Salina	Grimsby	Oriskany	Queenston	Queenston	Queenston	Queenston	Queenston
RESULT	Dry Abandoned	Shot at 3208 Show gas & oil in Oriskany Abandoned	Dry Abandoned	916 Mcf gas, AF from Grimsby RP 1122 psi 36 hrs. Discovery Well Indian Spring Pool	Show of oil in Onondaga and Oriskany Abandoned	62 Mcf gas 1 bbl oil and 2 bbls. SW, AF RP 550 psi 15 hrs. Abandoned	300 Mcf gas 27 bbls oil, AF RP 990 psi 67 hrs.	125 Mcf gas 2 bbls oil & show SW, AF RP 1050 psi 40 hrs	75 Mcf gas 1 bbl oil & salt water, AF RP 810 psi 48 hrs. Abandoned	499 Mcf gas AF RP 933 psi 72 hrs

DF - Derrick Floor

TABLE 15
SHEET 33

CRAWFORD COUNTY

QUADRANGLE	Linesville	Linesville	Linesville	Linesville	Titusville	Townville				
QUADRANGLE NUMBER	11	12	13	14	2	1				
NAME OF WELL	T. R. Cain et al 1	Robert L. Oates 1	Ed Mullen 1	J. Kardosh 1	J. Watson 1	Harry F. White 1				
OPERATOR	Mid-Atlantic Oil & Gas Co	Mid-Atlantic Oil & Gas Co	Benedum-Trees Oil Co	Benedum-Trees and Ark-La Gas Co		Harry F. White and George W. Bean				
TOWNSHIP	Conneaut	Conneaut	So. Shenango	Summerhill	Oil Creek	Richmond				
LATITUDE	5900 ft. N 41°40'	4000 ft. N. 41°40'	5000 ft. N. 41° 30'	12,525 ft. S. 41° 45'	13,300 ft. S. 41°40'	2000 ft. S 41° 45'				
LONGITUDE	7400 ft. W. 81°25'	11,100 ft. W. 80° 25'	3900 ft. W 80°25'	7300 ft. E. 80°20'	8800 ft W 79°35'	9200 ft. W. 79°55'				
DATE COMPLETED	12 - 17 - 55	7 - 11 - 56	12 - 7 - 56	8 - 26 - 58	1870?	Reactivated 1957				
ELEVATION	1182	1118	1292	1337	1290	1270				
TULLY				2630 - 2660		2814 - 2898				
ONONDAGA	2563-	2495 - 2702	3060 -	2800 -		3026 - 3208 SG, SO				
ORISKANY	Salt water at 2785	2702 - 2721 SW at 2710	3260 - 3264 SW at 3264	2999 - 3002		Horizon at 3208				
BASS ISLAND		2721-	Helderberg, 3264- 3336 - 3365	3002 -		3208 -				
SALINA	2850 ± - 1st salt, 3074-	2785 ± - 1st salt, 2989-	3365 - 1st salt, 3573-	3070 - 3723 1st salt, 3560-		3260 - 1st salt, 3467-				
GUELPH - LOCKPORT	3520 ± -	3455 ± - Black water at 3641	4100 ± - SG, SO, SW at 4257 Little Lime, 4449-69	3723 -		Black water at 4100 rose 3000 ft				
GRIMSBY	3900 ± - SG	3840 ± -	4500 - 4604	4120 -						
WHIRLPOOL	4080 ± -		4680 -	4285 -						
QUEENSTON	4097-	4038 -	4693-	4292 -						
TOTAL DEPTH	4133	4088	4742	8030	3553	4300				
DEEPEST FORMATION REACHED	Queenston	Queenston	Queenston	Precambrian	Hamilton	Clinton				
RESULT	Dry	Show of oil & gas at 3860 No results AF Abandoned	Dry	Reedsville, 5200- Utica, 5950- Trenton, 6220- Trempealeau 6842- Eau Claire 7395- Precambrian, 7910- Dry	Dry Black shale 2600 - 2615 Not previously published	Production from Onondaga 14 Mcf gas 1/4 bbl oil 2 bbls. SW per day				

TABLE 15
SHEET 34

ELK COUNTY

QUADRANGLE	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette
QUADRANGLE NUMBER	244	245	246	247	248	249	250	251	252	253
NAME OF WELL	Boosters Club 1	Marion Brooks 1	Louise Chappelle 1	Paul Chase 2	Crown Petroleum Co. 1	Pa. Tract 26 14	Pa. Tract 29 18	Pa Tract 29 19	Pa Tract 29 20	Pa Tract 30 7
OPERATOR	Sam Jack	S. W. Jack, et al	Fairman Drilling Co.	Fairman Drilling Co.	Blain Wood, et al.	M L & H Co.	N Y S N G Corp (N415)	N Y S N G Corp. (N431)	N Y S N G Corp (N438)	N Y S N G Corp (N397)
TOWNSHIP	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette
LATITUDE	10,600 ft. N 41°15'	10,750 ft N 41°15'	10,900 ft. N 41°15'	10,800 ft. N 41°15'	12,100 ft N 41°15'	4000 ft S 41°20'	15,700 ft. S 41°20'	13,600 ft. S 41°20'	9600 ft. S 41°20'	1600 ft. N 41°15'
LONGITUDE	4500 ft E 78°25	4300 ft E 78°25'	900 ft E 78°25'	2500 ft E 78°25'	6200 ft E 78°25	5400 ft W 78°15'	5500 ft W 78°20'	11,300 ft W 78°20'	8700 ft W 78°20'	5250 ft E 78°20'
DATE COMPLETED	1-14-55	3-18-55	4-4-55	3-3-55	1-14-55	7-27-55	3-3-55	3-24-55	3-17-55	3-11-55
ELEVATION	1072	1069	1268	1417	1086	2070	2106	1673	1319	2154
TULLY	5475-	5477-	5800-	5887-	5498-	6263-6390	6305-6412	6080-	5815-5925	6379-6510
ONONDAGA	6124-	6117-	6430-	6535-	6165-	7015-	6963-	6718-	6453-	7160-
ORISKANY	6175- Gas	6166- Gas	6466- Salt water 6478	6575- Gas	6207- Gas	7049-7074 Gas 7050	7003- Gas	6758- Gas	6487- Gas	7215- Gas 7218
HELDERBERG						7074-				
TOTAL DEPTH	6182	6181	6480	6598	6220	7077	7029	6790	6508	7225
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany	Helderberg ?	Oriskany	Oriskany
RESULT	I.O.F. 5500 Mcf RP 2500 psi 24 hrs.	2300 Mcf AS RP 1900 psi 14 hrs	Abandoned	3000 Mcf AS RP 2400 psi 48 hrs.	I.O.F. 1600 Mcf RP 2160 psi 72 hrs.	I.O.F. 1243 Mcf R.P. 1150 psi 48 hrs.	I.O.F. 4775 Mcf RP 1120 psi 41 hrs.	I.O.F. 1313 Mcf RP 1260 psi 17 hrs.	4055 Mcf AS RP 1125 psi 21 hrs.	I.O.F. 696 Mcf RP 1140 psi 4 hrs

TABLE 15
SHEET 35

ELK COUNTY

QUADRANGLE	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette
QUADRANGLE NUMBER	254	255	256	257	258	259	260	261	262	263
NAME OF WELL	Pa. Tract 33 11	Pa. Tract 37 4	Pa. Tract 37 5	Pa. Tract 37 6	Pa. Tract 38 5	B & O R R 9	Dents Run Coal Co. 1	Edith Heidrick 1	Edith Heidrick 2	Geo. Rupprecht 1
OPERATOR	NYSNG Corp (N430)	NYSNG Corp (N433)	NYSNG Corp. (N434)	NYSNG Corp. (N441)	Gross Associates	Mid-Atlantic Oil & Gas Co.	Fairman Drilling Co.	NYSNG Corp. (N498)	NYSNG Corp. (N508)	Flanigan, et al.
TOWNSHIP	Benezette	Benezette	Benezette	Benezette	Jay	Benezette	Benezette	Benezette	Benezette	Benezette
LATITUDE	4800 ft. N 41°15'	8900 ft. N 41°15'	3900 ft. N 41°15	7500 ft. N 41°15'	500 ft. N 41°30'	3800 ft. N 41°20'	11,900 ft. N 41°20'	11,850 ft. S 41°25'	10,800 ft. S 41°25'	11,800 ft. N 41°20'
LONGITUDE	5500 ft. E 78°20'	700 ft. E 78°25'	1200 ft. W 78°25'	1150 ft. W 78°25'	2000 ft. W 78°25'	7600 ft. W 78°15'	9300 ft. W 78°15'	4100 ft. W 78°15'	6600 ft. W 78°15'	6200 ft. W 78°15'
DATE COMPLETED	2-23-55	1-19-55	5-10-55	5-3-55	2-23-55	4-15-54	11-16-56	12-14-56	10-19-56	11-9-56
ELEVATION	1271	1846	1877	1736	1922	897	1641	1645	1589	1635
TULLY	5542-5660	6310-6415	6274-	6216-6335	6220-	5310-	6131-	6116-	6115-6228	6174-
ONONDAGA	6200-	6960-	6995-	6878- Chert 6895-	6890-	6047-	6765-	6740-	6748- Chert 6775-	6808-
ORISKANY	6249-6274 Gas 6252	7005- Gas 7011	7042- Gas 7044	6929- Gas 6934	6935-	6071- 25 Mcf gas; SW	6792- Show of gas	6775-6813 Gas	6783- Gas 6787	6848- 231 Mcf gas 45 gal. SW
HELDERBERG	6274-							6813-		
TOTAL DEPTH	6283	7029	7067	6939	6943	6075	6837	6815	6793	6878
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Helderberg ?	Helderberg	Oriskany	Oriskany
RESULT	4548 Mcf AS RP 1460 psi 15 hrs.	5731 Mcf AS RP 2725 psi 20 hrs.	894 Mcf AS RP 2850 psi 80 hrs.	933 Mcf AS RP 2750 psi 116 hrs.	2900 Mcf AS RP 1800 psi 16 hrs.	Abandoned	220 Mcf AF, blew down to 80 Mcf Abandoned	839 Mcf AF RP 3250 psi 10 days	I.O.F. 2054 Mcf RP 3710 psi 90 hrs.	Gas blew down to 80 Mcf in 12 hrs. Abandoned

TABLE 15
SHEET 36

ELK COUNTY

QUADRANGLE	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Clearfield	Clearfield	Hallton
QUADRANGLE NUMBER	264	265	267	268	270	271	272	27	43	1
NAME OF WELL	Ross St. John 2	Ross St. John 3	Dents Run Coal Co. 1	Roland Dill 1	A.J. Palumbo 1	Gladys Summers 1	Dents Run Coal Co. 2	Pa Game Lands Tract 34-C 1	Pa Tract 83 1	Pa Game Lands Wt. 3653 1
OPERATOR	W.H. Wert, et al.	W.H. Wert, et al.	Richard Hill, et al.	J.C. Walker	NYSNG Corp. (N665)	J.C. Walker	NYSNG Corp. (N679)	M L & H Co	Shell Oil Co	Penna Gas Co
TOWNSHIP	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Benezette	Clearfield	Clearfield	Hallton
LATITUDE	13,750 ft S 41°25'	14,600 ft N 41°20'	10,750 ft N 41°20'	7800 ft S 41°25'	8000 ft S 41°20'	5000 ft S 41°25'	13,800 ft S 41°25'	600 ft S 41°15'	2450 ft S 41°15'	16,500 ft S 41°30'
LONGITUDE	7850 ft W 78°15'	6800 ft W 78°15'	9800 ft E 78°20'	4400 ft W 78°15'	1800 ft E 78°30'	5300 ft W 78°15'	7900 ft W 78°20'	3300 ft E 78°20'	8000 ft E 78°30'	3000 ft E 78°55'
DATE COMPLETED	6-7-56	12-12-56	5-10-57	5-31-57	12-12-58	12-15-58	4-23-59	8-30-55	9-4-59	7-19-45
ELEVATION	1009	967	1029	1570	1645	1524	1457	2078	1279 DF	1572
TULLY	5510-5620	5409-	5640-	6088-	6145-	6095-	6108-	6395-	5817-5933	5141-5172
ONONDAGA	6158-	6033-	6292-	6702- Chert 6725-	6740- Chert 6757-	6700- Chert 6723-	6723- Chert 6744-		6485- Chert 6505	5546-5602
ORISKANY	6188 Gas 6193	6064-6100 15 Mcf 6064	6318- SG 6322 SW 6329	6738- 146 Mcf 6738	Horizon at 6795-	6737- 30 gals SW/1 hr.	6773-6782		6538-	Sandstone absent
HELDERBERG		6100-			6795-				6564-	5602-5680
SALINA										5720-6494
GUELPH - LOCKPORT										6811-7078
GRIMSBY										7340-
WHIRLPOOL										-7528
QUEENSTON										7528-
TOTAL DEPTH	6195	6108	6334	6760	7050	6746	7000	7378	6588	7546
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Oriskany	Oriskany	Salina	Oriskany	Salina	Hamilton	Helderberg	Queenston
RESULT	10 F 1375 Mcf RP 3300 psi Discovery Well Hicks Run Pool	327 Mcf AF RP 3300 psi 8 days	Abandoned	1980 Mcf AF RP 3350 psi 40 hrs.	Show of gas after frac. Abandoned	Abandoned	Plugged back to 6787 7 Mcf AF Abandoned	Abandoned above Onondaga	1034 Mcf AF RP 3400 psi 15 days	Reactivated 1958 Fraced 5624-34 No results Plugged back to 2400 for shallow gas

TABLE 15
SHEET 37

ELK COUNTY

QUADRANGLE	Penfield	Penfield	Ridgway	Ridgway	Ridgway					
QUADRANGLE NUMBER	11	204	1	2	3					
NAME OF WELL	Logan L. Bond 1	A.J. Palumbo 8	A.J. Palumbo 6	Koull & Hall 1	B.W. Hewitt 1					
OPERATOR	NYSNG Corp. (N507)	NYSNG Corp. (N715)	NYSNG Corp. (N707)	Fairman Drilling Co.	James Drilling Co					
TOWNSHIP	Horton	Jay	Fox	Jay	Jay					
LATITUDE	1500 ft. S 41°15'	150 ft. S 41°15'	50 ft. N 41°15'	9300 ft. N 41°15'	1300 ft. N 41°15'					
LONGITUDE	5000 ft. E 78°40'	10,700 ft. W 78°30'	9100 ft. E 78°35'	350 ft. W 78°30'	5500 ft. W 78°30'					
DATE COMPLETED	3-25-57	8-31-59	6-8-59	11-5-59	12-16-59					
ELEVATION	2343	1568	1717	1294 DF	1281 DF					
TULLY	5810-5910	6512-	6630-	6315-6427	6245-					
ONONDAGA	6416- Chert 6447-	7112- Chert 7129-	7278- Chert 7297-	6922- Chert 6939-	6790- Chert 6808-					
ORISKANY	6490-6495 Show of gas	7180-7210 Gas 7181-83	7352-7383	6973-7000	6856- Show gas, SW					
HELDERBERG	6495-6671? SG 6665-6668	7210-	7383-	7000-						
SALINA	6671?-6790+									
GUELPH - LOCKPORT										
GRIMSBY										
WHIRLPOOL										
QUEENSTON										
TOTAL DEPTH	6790	7211	7384	7020	6886					
DEEPEST FORMATION REACHED	Salina	Helderberg	Helderberg	Helderberg	Oriskany					
RESULT	Shallow prod. Plgd. back to 2371 Sand, 2333-2370 539 Mcf AF RP 430 psi 42 days	2665 Mcf AF RP 3540 psi 24 hrs. from Onondaga chert & Oriskany	4150 Mcf AF RP 3360 psi 18 hrs. from Onondaga chert & Oriskany	750' Salt water 12 hrs. Abandoned	Abandoned					

TABLE 15
SHEET 38

ERIE COUNTY

QUADRANGLE	Cambridge Springs	Corry	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	6	24	15	16	17	18	19	20	21	22
NAME OF WELL	Ethridge 1	L. I Sill 1	Himes & Hull 1	H P Laskoski 1	Peterson 1	W Thayer 1	Andrews 1	Edna Vickey 1	B P Bean 1	Crawford 1
OPERATOR	Allegheny Industries	Plymouth Oil Co.	Stephens & Skrobat	Stephens & Skrobat	James Nichols	Amity Oil & Gas Co.	Ryan, Flanagan et al	Ryan, Flanagan et al	The Sylvania Corp. No. 372	Flanagan et al
TOWNSHIP	Washington	Wayne	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	8000 ft. S. 41° 55'	2800 ft. N. 41° 55'	14,000 ft. S. 42° 05'	12,100 ft. S. 42° 05'	11,680 ft. S. 42° 05'	9950 ft. S. 42° 05'	10,930 ft. S. 42° 05'	11,660 ft. S. 42° 05'	11,500 ft. S. 42° 05'	12,700 ft. S 42° 05'
LONGITUDE	2300 ft. E. 80° 05'	1400 ft. E. 79° 45'	9450 ft. W. 80° 00'	9500 ft. W. 80° 00'	7600 ft. W. 80° 00'	8800 ft. W. 80° 00'	6350 ft. W. 80° 00'	6440 ft. W. 80° 00'	11,500 ft. W. 80° 00'	11,700 ft. W. 80° 00'
DATE COMPLETED	11 - 15 - 57	3 - 23 - 55	1 - 4 - 55	3 - 3 - 55	6 - 30 - 55	5 - 2 - 55	5 - 16 - 55	6 - 29 - 55	9 - 12 - 55	8 - 10 - 55
ELEVATION	1413	1440	1326	1270	1250	1241	1144	1170	1305	1314
TULLY	2493 - 2573	2686 - 2770	1957 -	1917 -	1898 -	1903 -	1812 -	1819 - 1921	1950 -	1952 - 2058
ONONDAGA	2708 - 2962	2930 - 3068 SG at 3068	2199 -	2145 -	2137 -	2130 -	2038 -	2038 -	2180 -	2181 -
ORISKANY	2952 - 2966	Horizon at 3149	2440 - Gas	2395 - Gas at 2397	2382 - SO & SW	2385 - SW & SSW	2288 - Gas	Horizon at 2287	2423 - Gas	2423 - Gas
BASS ISLAND	2966 - SW at 2976	3149 -								
SALINA	3030 ± -	3204 -								
GUELPH - LOCKPORT	3610 ± -	3738 - 4030 Newburg 3865 - Black water at 3900								
GRIMSBY	3990 ± -	4135 ± -								
WHIRLPOOL	4150 ± -	4296 ±								
QUEENSTON	4160 -	4306 -								
TOTAL DEPTH	6840	4336	2447	2399	2392	2394	2291	2337	2427	2434
DEEPEST FORMATION REACHED	Gatesburg	Queenston	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Bass Island	Oriskany	Oriskany
RESULT	Utica shale, 5760-5875 Trenton, 5875 - Gatesburg, 6673 - SW at 6690 Abandoned	Dry	I.O.F. 1268 Mcf gas R P 567 psi 15 min.	I.O.F 2974 Mcf gas R.P 765 psi in 15 min.	Show of oil at 2389 Salt water rose 40 ft. in 45 min. Abandoned	Salt water in Oriskany Abandoned	I.O.F 575 Mcf gas R.P. 756 psi Did not produce Abandoned	Dry Abandoned	I.O.F 3700 Mcf gas R P 806 psi 1 hr.	I.O.F. 6000 Mcf gas R P 750 psi 5 min.

TABLE 15
SHEET 39

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	23	24	25	26	27	28	29	30	31	32
NAME OF WELL	Paul Osborne 2	Chas Zwilling 1	Chas Zwilling 1	Chas. Zwilling 2	Crawford 2	Laskoski 2	Oless 1	L. Fogle 1	J. Fogle 1	E. Bronokowski 1
OPERATOR	V. Stephens et al	The Sylvania Corp, No 370	The Sylvania Corp, No 355	The Sylvania Corp, No. 367	Ryan & Flanagan	D.R. Stephens et al	Siegel et al	Erico Drilling Co.	Erico Drilling Co.	J. Pitonyak et al
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	12,830 ft. S. 42°05'	13,750 ft. S. 42°05'	14,700 ft. S. 42°05'	13,200 ft. S. 42°05'	13,950 ft. S. 42°05'	11,150 ft. S. 42°05'	12,000 ft. S. 42°05'	11,500 ft. S 42°05'	11,250 ft. S. 42°05'	11,940 ft. S 42°05'
LONGITUDE	10,950 ft. W 80°00'	9300 ft. W 80°00'	8600 ft. W. 80°00'	8600 ft W 80°00'	11,530 ft. W 80°00'	10,400 ft. W 80°00'	13,100 ft. W. 80°00'	6050 ft. E. 80°05'	5500 ft. E. 80°05'	6500 ft. E 80°05'
DATE COMPLETED	7 - 20 - 55	6 - 3 - 55	4 - 21 - 55	4 - 16 - 55	9 - 25 - 55	10 - 3 - 55	10 - 26 - 55	11 - 15 - 55	5 - 27 - 55	10 - 10 - 55
ELEVATION	1311	1311	1301	1289	1323	1268	1268	1246	1244	1254
TULLY	1957 -	1957 -	1960 - 2073	1963 -	1966 - 2076	1932 -	1908 -	1875 - 1997	1877 -	1880 - 1990
ONONDAGA	2188 -	2184 -	2180 -	2164 -	2191 -	2160 -	2135 - 2377	2105 -	2102 -	2115 -
ORISKANY	2428 - Gas	2428 - Gas	2436 - SG, SW	2416 - Gas	2440 - Gas	2422 - SW	2377 - Gas	2351 - Gas, 2354-57	2344 -	2359 - Gas
BASS ISLAND										
TOTAL DEPTH	2442	2436	2442	2421	2451	2425	2389	2364	2356	2377
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	I.O.F. 3396 Mcf gas R.P 820 psi	I.O.F. 1500 Mcf gas R.P. 805 psi	6 Mcf gas 1 gal SW Abandoned	I.O.F. 1684 Mcf gas R.P. 850 psi	I.O.F. 6000 Mcf blew down to 942 Mcf gas Orig. T.D. 2444 Drilled deeper 2 - 3 - 56 5499 Mcf gas R.P 850 psi	Salt water rose 150 ft in 20 min. Abandoned	I.O.F. 6790 Mcf gas	226 Mcf gas R.P. 795 psi Orig. T.D. 2356 Drilled deeper 3 - 5 - 56 3750 Mcf gas	4389 Mcf gas after shot	I.O.F. 1731 Mcf R.P. 620 psi 15 min. Orig. T.D. 2371 Drilled deeper Salt water in Oriskany Abandoned

TABLE 15
SHEET 40

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	33	34	35	36	37	38	39	40	41	42
NAME OF WELL	Ignasiak 1	Bearce 1	Goodwell 1	B. Saltesz 1	Art Will 1	Will 1	P. Vetter 1	Smith 1	A. Dolak 1	King Robinson 1
OPERATOR	Amity Oil & Gas Co.	Summit Oil & Gas Co.	Erico Drilling Co.	V. Stephens et al	Will et al	H. Vinapol	Flanagan et al	Flanagan et al	C. Siegel	The Sylvania Corp. No. 373
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	12,400 ft. S. 42°05'	13,200 ft. S. 42°05'	12,600 ft. S 42°05'	10,900 ft. S 42°05'	11,600 ft S 42°05'	10,600 ft S 42°05'	12,300 ft S 42°05'	12,000 ft S 42°05'	10,800 ft S 42°05'	13,300 ft S 42°05'
LONGITUDE	7200 ft. E 80°05'	6900 ft E 80°05'	5300 ft E 80°05'	7800 ft E. 80°05'	8100 ft E 80°05'	3100 ft E 80°05'	2800 ft E 80°05'	4000 ft E 80°05'	5300 ft E 80°05'	4400 ft E 80°05'
DATE COMPLETED	12 - 16 55	11 - 23 - 55	8 - 1 - 55	10 - 17 - 55	11 - 8 - 55	7 - 1 - 55	11 - 8 - 55	12 - 10 - 55	12 - 14 - 55	9 - 30 - 55
ELEVATION	1262	1274	1258	1221	1239	1185	1237	1237	1201	1251
TULLY	1898 -	1910 -	1899 - 1995	1854 -	1888 -	1836 -	1868 -	1861 -	1840 - 1920	1890 -
ONONDAGA	2123 -	2133 -	2121 - 2367	2079 -	2102 -	2060 -	2091 - SO in chert	2084 -	2073 -	2111 -
ORISKANY	2362 - Gas	2371 - Gas	2367 - Gas	2323 - Gas	2345 - Gas	2309 - SW	2335 - Gas, 2335-49	2324 - Gas	2308 - Gas	2356 - Gas
BASS ISLAND										
TOTAL DEPTH	2374	2390	2376	2335	2356	2330	2355	2336	2312	2371
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	1.0 F 8361 Mcf gas	1.0 F 360 Mcf gas Orig. T.D 2386 Drilled deeper 4176 Mcf gas	1.0 F 2670 Mcf gas R.P. 806 psi	1.0 F 11,711 Mcf gas R.P. 801 psi 24 hrs	1.0 F 6400 Mcf gas	1200 ft SW at 2324 1800 ft. SW at 2329 Abandoned	1.0 F 9800 Mcf down to 3858 Mcf Orig T.D. 2349 Drilled deeper 10 - 30 - 57 7278 Mcf gas	1.0 F 8150 Mcf gas	1.0 F 1000 Mcf gas On 1 - 24 - 58 300 ft SW 2 Mcf gas Abandoned	1.0 F 3800 Mcf Orig T.D 2366 Drilled deeper 10 - 4 - 57 5600 Mcf gas RP 440 psi

TABLE 15
SHEET 41

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	43	44	45	46	47	48	49	50	51	52
NAME OF WELL	Herb Anderson 1	Paul Osborne 3	Inman 1	Weiss 1	V. Brooks 1	Barton 1	Lininger 1	T. Siegel 1	H. Prath 1	Andrus-Graham 1
OPERATOR	The Sylvania Corp, No. 374	V Stephens et al	Summit Oil & Gas Co.	Chas Siegel	The Sylvania Corp.	Fairman Drilling Co.	The Sylvania Corp, No. 366	The Sylvania Corp, No. 356	Douglas Brown	Summit Dev. Co
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Mill Creek	Summit
LATITUDE	14,880 ft. S. 42°05'	14,640 ft. S. 42°05'	14,800 ft. S. 42°05'	15,300 ft. S. 42°05'	17,600 ft. S. 42°05'	19,700 ft. S. 42°05'	18,900 ft. S. 42°05'	17,300 ft. S. 42°05'	4500 ft. S. 42°05'	13,200 ft. S 42°05'
LONGITUDE	12,100 ft. W. 80°00'	11,000 ft. W. 80°00'	7500 ft. W 80°00'	7600 ft. W. 80°00'	4100 ft. E. 80°05'	8100 ft. E. 80°05'	11,480 ft. W 80°00'	11,400 ft. W. 80°00'	5000 ft. W. 80°05'	7650 ft. E 80°05'
DATE COMPLETED	11 - 22 - 55	11 - 25 - 55	4 - 8 - 55	3 - 18 - 55	8 - 11 - 55	4 - 1 - 55	4 - 1 - 55	3 - 23 - 55	1 - 20 - 56	1 - 20 - 56
ELEVATION	1291	1335	1328	1332	1351 DF	1375	1315	1286	893	1265
TULLY	1935 -	1979 - 2080	1984 -	1968 -	2019 - 2125	2045 -	1983 -	1945 -	1511 -	1901 -
ONONDAGA	2162 -	2204 -	2206 -	2210 -	2239 -	2269 -		2175 -	1728 -	2124 -
ORISKANY	2414 - Gas, SW	2448 - Gas	2458 - SG at 2460 SW at 2466	2464 - 2480 SG, SW	2488 - SW at 2492	2514 - SW		2425 - SW	1997 - SW	2368 - Gas
BASS ISLAND				2480 -						
TOTAL DEPTH	2427	2462	2470	2486	2494	2523	2002	2432	2005	2383
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Bass Island	Oriskany	Oriskany	Tully	Oriskany	Bass Island	Oriskany
RESULT	I.O.F. 1800 Mcf gas 1 bbl SW R.P 800 psi Abandoned	I.O.F. 8700 Mcf gas R.P 803 psi	15 Mcf gas 20 gals SW. per hr. Abandoned	10 Mcf gas R.P 650 psi Salt water rose 500 ft at 2471 - 78	1 bbl SW in 15 min Abandoned	60 gals SW at 2523 Salt water rose 1500 ft. in 72 hrs. Abandoned	Abandoned above Onondaga	Salt water in Oriskany Abandoned	Salt water rose 2000 ft 1999 - 2005 Abandoned	I.O.F. 5000 Mcf gas est.

TABLE 15
SHEET 42

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	53	54	55	56	57	58	59	60	61	62
NAME OF WELL	Angelotti 1	A. Ardini 1	Bean 1	C. A. Blass 1	Bronakowski 2	P. Carmerlo 1	P. Carmerlo 2	J. Caserta 1	Coleman 1	Goodwell-Curley 1
OPERATOR	Dan Cowan et al	Pa Gas Co. No. 1527	Pa. Gas Co.	Chas Siegel	Pitonyak et al	Pa. Gas Co No. 1519	Pa. Gas Co No. 1526	Pa. Gas Co No. 1515	Art Will	V. R Stephens et al
TOWNSHIP	Summit	Summit	Summit	McKean	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	10,200 ft. S. 42°05'	10,800 ft. S. 42°05'	11,200 ft. S. 42°05'	16,800 ft. S. 42°05'	11,120 ft. S. 42°05'	12,000 ft. S. 42°05'	11,200 ft. S. 42°05'	11,600 ft. S 42°05'	10,450 ft S 42°05'	13,400 ft. S 42°05'
LONGITUDE	13,200 ft. W 80°00'	400 ft. E. 80°05'	12,900 ft. W 80°00'	13,400 ft. W. 80°05'	6200 ft. E. 80°05'	1000 ft. E 80°05'	2030 ft. E. 80°05'	8800 ft. E. 80°05'	8400 ft. E. 80°05'	6600 ft. W. 80°00'
DATE COMPLETED	2 - 3 - 56	9 - 7 - 56	7 - 6 - 56	11 - 2 - 56	9 - 2 - 56	3 - 30 - 56	8 - 31 - 56	1 - 13 - 56	3 - 5 - 56	11 - 13 - 56
ELEVATION	1255	1180	1268	1065	1224	1220	1205	1256	1217	1240
TULLY	1890 -	1809 - 1908	1904 - 2012	1710 -	1841 -	1872 -	1832 - 1904	1894 - 1997	1850 -	1879 -
ONONDAGA	2090 -	2033 -	2132 -	1940 -	2065 -	2074 -	2062 -	2120 -	2074 -	2110 -
ORISKANY	2359 - Gas	2277 - Gas	2375 -	2200 ± - SW	2313 - Gas at 2322-27	2323 - Gas	2309 - Gas at 2314	2362 - Gas	2325 - Gas	2352 - 2377 1660 cu ft at 2369
BASS ISLAND				2210 ± -						2377 - 2467 ± SW at 2380
SALINA				2300 ± -						2467 ± - 2917 SW at 2480
GUELPH - LOCKPORT				2750 ± - 2990						2917 - 3191 30 Mcf at 3106-10 3 boilers SW at 3117
GRIMSBY				3100 ± - Gas at 3142						3291 - 3398 100 Mcf at 3347
WHIRLPOOL				3252 -						3440 - 3451 10 Mcf at 3447
QUEENSTON				3260 -						3451 - 4326
TOTAL DEPTH	2368	2287	2387	3282	2329	2332	2319	2372	2334	6015
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Queenston	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Gatesburg
RESULT	1 O F 4000 Mcf gas	1 O F 30,000 Mcf gas R P 690 psi 24 hrs.	1 O F 4699 Mcf gas R P 692 psi	Former TD 3082 DD 7-2-58 106 Mcf gas, AF RP 900 psi; 2 mo. Discovery Well Blass Pool	1 O F 3465 Mcf gas	1 O F 17,008 Mcf gas R P 722 psi 24 hrs.	1 O. F 16,983 Mcf gas R P 689 psi	1 O F 6400 Mcf gas R P 775 psi 17½ hrs.	1 O F 9192 Mcf gas	Reedsville, 4326- Utica, 4959- Trenton, 5176- Black River, 5563- Gatesburg, 5979+ 20 Mcf gas 1785 ft SW at 6012

DD - drilled deeper

TABLE 15
SHEET 43

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	63	64	65	66	67	68	69	70	71	72
NAME OF WELL	Danish Lots 1	Dolak 2	Eller 1	A. Engell 1	Engell 2	Henry Faerber 1	T. Fagon (Wolfe) 1	C. Fagon 1	O. Farnen 1	H. Finch 1
OPERATOR	Art Will et al	Chas Siegel et al	Vinopal & Stephens	Pa Gas Co No. 1514	Pa Gas Co No. 1517	Weaver Bros.	J Pitonyak et al	J. Pitonyak	Pa Gas Co No 1521	Flanagan et al
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	9900 ft. S. 42° 05'	11,100 ft. S. 42° 05'	9780 ft. S. 42° 05'	12,700 ft. S. 42° 05'	12,050 ft. S. 42° 05'	7100 ft. S. 42° 05'	13,040 ft. S. 42° 05'	12,850 ft. S. 42° 05'	13,700 ft. S. 42° 05'	13,600 ft. S 42° 05'
LONGITUDE	8200 ft. E. 80° 05'	4800 ft. E. 80° 05'	5800 ft. E. 80° 05'	7900 ft. E. 80° 05'	7480 ft. E 80° 05'	8000 ft. E. 80° 05'	1520 ft. E. 80° 05'	1780 ft. E. 80° 05'	8300 ft. E. 80° 05'	580 ft. E. 80° 05'
DATE COMPLETED	1 - 6 - 56	1 - 27 - 56	4 - 27 - 56	1 - 20 - 56	2 - 24 - 56	3 - 29 - 56	7 - 17 - 56	11 - 2 - 56	9 - 4 - 57	3 - 16 - 56
ELEVATION	1257	1211	1206	1252	1249	1162	1251	1238	1286	1240
TULLY	1915 -	1852 -	1848 -	1886 - 1979	1877 - 1989	1773 -	1888 - 1976	1880 -	1906 -	1897 -
ONONDAGA	2117 -	2074 -	2080 -	2116 -	2105 -	2000 -	2110 -	2100 -	2130 -	2128 -
ORISKANY	Sandstone absent	2319 - Gas	2324 - SW	2364 - 2389 SO, SW	2349 - Gas	2265 - SW at 2271	2357 - Gas	2347 - Gas	2380 - SW at 2387-92	2388 - SW, 2399-2400
BASS ISLAND				2389 - SG						
TOTAL DEPTH	2395	2329	2332	2390	2359	2271	2368	2358	2397	2400
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Bass Island	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	Salt water at 2390 - 2395 Abandoned	I.O.F. 12,448 Mcf gas	Salt water at 2332 Abandoned	Show of oil ½ bailer SW at 2376 25 Mcf gas at 2390 Abandoned	I.O.F. 9819 Mcf gas RP. 732 psi.	Salt water in Oriskany Abandoned	I.O.F. 1056 Mcf gas blew down to 725 Mcf Abandoned	I.O.F. 8000 Mcf gas	1650 Mcf gas RP 657 psi Drowned out by salt water Abandoned	Salt water in Oriskany Abandoned

TABLE 15
SHEET 44

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	73	74	75	76	77	78	79	80	81	82
NAME OF WELL	Finchio 1	Havern 1	Kanyar 1	Karaski 1	Roger Kerr 1	F. Korrell 1	Kuzma 1	E. Mehl 1	Neiderriter 1	R. Nick 1
OPERATOR	Pa Gas Co. No. 1522	J Pitonyak	Pa. Gas Co. No. 1523	Chris Co.	Amity Oil & Gas Co.	Art Will et. al	Pa. Gas Co. No. 1513	Flanagan et al	H. D. Brown et al	Harold Chris et al
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	McKean	Summit	Summit	Summit	Summit
LATITUDE	14,100 ft. S. 42°05'	12,700 ft. S. 42°05'	13,900 ft. S. 42°05'	14,900 ft. S. 42°05'	12,700 ft. S. 42°05'	16,600 ft. S. 42°05'	13,700 ft. S. 42°05'	10,900 ft. S. 42°05'	7650 ft. S. 42°05'	12,200 ft. S 42°05'
LONGITUDE	6100 ft. E. 80°05'	1350 ft. E. 80°05'	9600 ft. E. 80°05'	1600 ft. E. 80°05'	6500 ft. E. 80°05'	5600 ft. E 80°10'	12,300 ft. W. 80°00'	14,000 ft. W 80°00'	3360 ft. E 80°05'	5550 ft. E 80°05'
DATE COMPLETED	5 - 11 - 56	5 - 11 - 56	6 - 1 - 56	10 - 12 - 56	2 - 6 - 56	10 - 26 - 56	2 - 8 - 56	2 - 24 - 56	7 - 23 - 56	4 - 20 - 56
ELEVATION	1282	1237	1271	1285	1265	1033	1292	1238	1122	1274
TULLY	1916 -	1880 -	1913 -	1922 - 2012		1670 -	1940 - 2035	1867 -	1762 -	1911 -
ONONDAGA	2141 -	2084 - 2344	2144 -	2144 -	2118 -	1901 - SO at 1970	2156 -	2094 -	1995 -	2140 -
ORISKANY	2381 - Gas	2344 - Gas	2380 - Gas	2397 - Gas	2357 - Gas	2168 - SSG, SW	2400 - Gas	2339 - Gas	2245 - SSG, SSO, SW	2382 - Gas
BASS ISLAND										
TOTAL DEPTH	2390	2351	2391	2405	2373	2186	2410	2350	2254	2392
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	I.O.F. 13,131 Mcf gas R.P. 682 psi 24 hrs.	I.O.F. 4817 Mcf gas R.P. 725 psi 40 hrs.	I.O.F. 5252 Mcf gas R.P. 680 psi 42 hrs.	I.O.F. 9822 Mcf gas R.P. 685 psi 15 hrs.	I.O.F. 9055 Mcf gas	Salt water at 2170-2174 rose 1883 ft. in hole Abandoned	I.O.F. 6391 Mcf gas	I.O.F. 9192 Mcf gas R.P. 726 psi. 24 hrs.	Small show gas Small show oil Salt water at 2252 Abandoned	2500 Mcf gas after acidizing at T.D. 2383 Drilled deeper; 9182 Mcf gas

TABLE 15
SHEET 45

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	83	84	85	86	87	88	89	90	91	92
NAME OF WELL	T. Rinderle 1	C. Rubin 1	Schlindwein 1	Schlindwein 1	J. Schuster 1	E. Straub 1	P. Stuchlak 1	J. Taft 1	F. Vetter 3	Vetter 2
OPERATOR	Stevenson Dev. Co.	Weaver Bros.	N Y P A Corp.	Weaver Bros.	Flanagan et al	N Y P A Corp.	Erico Drilling Co.	Erico Drilling Co.	Ryan, Flanigan et al	Flanigan
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	10,940 ft. S. 42° 05'	9400 ft. S. 42° 05'	14,400 ft. S. 42° 05'	13,200 ft. S. 42° 05'	9960 ft. S. 42° 05'	9600 ft. S. 42° 05'	10,900 ft. S. 42° 05'	11,000 ft. S. 42° 05'	12,900 ft. S. 42° 05'	12,500 ft. S. 42° 05'
LONGITUDE	1140 ft. E. 80° 05'	9400 ft. E. 80° 05'	5500 ft. E. 80° 05'	4850 ft. E. 80° 05'	6580 ft. E. 80° 05'	11,700 ft. W. 80° 00'	12,200 ft. W. 80° 00'	6900 ft. E. 80° 05'	1550 ft. E. 80° 05'	1500 ft. E 80° 05'
DATE COMPLETED	7 - 6 - 56	10 - 29 - 56	7 - 27 - 56	6 - 22 - 56	3 - 29 - 56	3 - 1 - 56	4 - 2 - 56	4 - 2 - 56	8 - 24 - 56	1 - 20 - 56
ELEVATION	1197	1258	1300	1269	1210	1265	1283 DF	1225	1237	1231
TULLY	1826 - 1910	1910 -	1935 -	1905 -	1857 -	1920 -	1921 -	1855 -	1872 -	
ONONDAGA	2045 -	2143 -	2153 -	2123 -	2089 -	2147 -	2144 -	2077 -	2096 -	2085 -
ORISKANY	2290 - Gas	2374 - SW	2395 - Gas	2365 - Gas	2329 - SW at 2339	2392 - Gas	2389 - Gas	2317 - Gas	2342 - Gas	2335 - Gas
BASS ISLAND										
TOTAL DEPTH	2300	2386	2413	2376	2339	2397	2400	2329	2350	2340
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	I.O.F. 12,000 Mcf gas R.P. 701 psi	1200 ft. of salt water from 2381-86 Abandoned	I.O.F. 11,000 Mcf gas	I.O.F. 10,416 Mcf gas R.P. 696 psi 17½ hrs.	Salt water in Oriskany Abandoned	I.O.F. 1500 Mcf gas	I.O.F. 5253 Mcf gas	I.O.F. 5252 Mcf gas	I.O.F. 8217 Mcf gas	I.O.F. 10,000 Mcf gas R.P. 780 psi 4 min.

TABLE 15
SHEET 46

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie	Erie
QUADRANGLE NUMBER	93	94	95	96	97	98	99	100	101	102
NAME OF WELL	F. Weinman 1	Will 2	Zimmerly 1	King Robinson 2	King Robinson 3	Dodge (Reinke) 1	Procter 1	G. Herman 1	Rinderlie 2	Presque Isle Broadcasting Co. 1
OPERATOR	N.Y.P.A Corp.	Vinopal et al	H.D. Brown, Jr.	Pa Gas Co No. 1518	Pa Gas Co No 1528	Vinopal et al	Wm. Gettman	Summit Oil & Gas Co.	Stevenson Dev. Co.	Jos. Brechner
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit	Summit
LATITUDE	9000 ft S 42°05'	11,600 ft S 42°05'	11,900 ft S 42°05	13,250 ft S 42°05'	13,350 ft S 42°05'	8650 ft S 42°05'	8700 ft S 42°05'	3000 ft N 42°00'	10,050 ft S 42°05'	10,600 ft S 42°05'
LONGITUDE	10,400 ft. W. 80°00'	3400 ft. E. 80°05'	7200 ft. W. 80°05'	2700 ft. E. 80°05'	4000 ft. E. 80°05'	5000 ft. E. 80°05'	10,400 ft. E. 80°05'	10,900 ft. W. 80°00'	1100 ft E. 80°05'	11,400 ft. W. 80°00'
DATE COMPLETED	5 - 11 - 56	1 - 20 - 56	10 - 29 - 56	3 - 30 - 56	11 - 9 - 56	5 - 18 - 56	11 - 23 - 56	8 - 31 - 56	1 - 11 - 57	2 - 15 - 57
ELEVATION	1246	1215	1030	1269	1275	1176	1247	1439	1168	1278
TULLY	1898 -	1847 -	1673 -	1905 -	1908 -	1830 -	1900 -	2130 -	1810 -	1930 -
ONONDAGA	2113 -	2066 - Oil 2220-50	1907 -	2124 -	2130 -	2046 -	2137 -		2037 -	2144 -
ORISKANY	2363 - Gas	2316 - Gas	Horizon at 2172	2376 - Gas	2378 - Gas	2298 - 2328 SW at 2305	2377 - SW at 2387	2612 - SW	2278 - 2286 SG, SW	2396 - Gas
BASS ISLAND			2172 - SW at 2179			2328 -			2286 -	
SALINA			2260 ± -							
GUELPH - LOCKPORT			2705 ± - SW							
GRIMSBY			3049 - 78 Mcf gas BF							
WHIRLPOOL			3186 -							
QUEENSTON			3196 -							
TOTAL DEPTH	2374	2325	3248	2386	2391	2330	2390	2618	2296	2408
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Queenston	Oriskany	Oriskany	Bass Island	Oriskany	Oriskany	Bass Island	Oriskany
RESULT	1 OF 956 Mcf gas R P 695 psi 5 hrs.	1 OF 17,603 Mcf gas I.P. 5 bbls oil per day R P 665 psi	575 Mcf gas A.F. (8-31-57) R P 660 psi	1 OF 1221 Mcf gas R P 733 psi	1 OF 10,217 Mcf gas R P 665 psi 23 hrs.	Salt water in Oriskany Abandoned	Salt water in Oriskany Abandoned	Salt water in Oriskany Abandoned	15 Mcf gas and salt water Abandoned	3147 Mcf gas, A.F. R P 270 psi 45 min. Well caught fire before completion

TABLE 15
SHEET 47

ERIE COUNTY

QUADRANGLE	Erie	Erie	Erie	Erie	Erie	Erie	Fairview	Girard	Girard	Girard
QUADRANGLE NUMBER	103	104	105	106	107	108	3	21	28	29
NAME OF WELL	C. Innes 1	H. Fogelback 1	Fornen 2	A. Babb 1	B Unger 1	J. Wolf 1	Pa. Offshore Block 1, No. 1	J.C. Jacobson 1	Edna Roberts 1	F. Pierce 1
OPERATOR	Stephens et al	D Cowan et al	Pa Gas Co	W. R. Stephens	C. Smith	V Stephens et al	NYSNG Corp (N 664)	C Williams et al	Britton, Miller DeArment & Walker	Great Lakes Nat. Gas Co
TOWNSHIP	Summit	Summit	Summit	Summit	Summit	Greene	in Lake Erie	Girard Boro	Conneaut	Springfield
LATITUDE	16,900 ft. S. 42°05'	16,100 ft. S. 42°05'	13,950 ft. S. 42°05'	10,000 ft. S. 42°05'	15,100 ft. S. 42°05'	5200 ft S. 42°05'	5300 ft. N. 42°00'	500 ft. S. 42°00'	700 ft S. 41°55'	6100 ft. S 42°00'
LONGITUDE	6700 ft E 80°05'	3200 ft E 80°05'	7400 ft E 80°05'	700 Ft W 80°05'	5500 ft E 80°05'	2550 ft W 80°00	7150 ft W 80°25'	2700 ft E 80°20'	13,500 ft E 80°30'	4150 ft W. 80°25'
DATE COMPLETED	2 - 28 - 58	6 - 6 - 57	9 - 4 - 57	8 - 21 - 57	8 - 22 - 57	12 - 31 - 58	10 - 24 - 58	7 - 26 - 56	11 - 1 - 58	12 - 31 - 58
ELEVATION	1356	1375	1286	1125	1308	1343 DF	602 DF	709	883	687
TULLY	2010 - 2150	1960 - 2060	1919 -		1949 - 2042	2004 - 2119	1100 - 1118	1251 -		1252 - 1287
ONONDAGA	2233 -	2184 -	2147 -	2012 -	2170 -	2237 -	1273 - 1563	1447 - SG in top Onon.	1803 -	1433 -
ORISKANY	2479 - 2492 SW	2437 - SSG, SW	2382 - Gas	2263 - SW	2414 - Gas at 2416	2491 - 2520 SW, 2514-20	1563 - 1603 SG, SW at 1568	1721 - 1200 ft SW	2087 - 2101 SW at 2087	1710 - 1750 SG, SW at 1710
BASS ISLAND	2492 -					2520 -	1603 - 1688		2101 - 2170	1750 -
SALINA							1688 - 2154 50% salt 2030-2055		2170 - 2685 1st salt, 2354 -	1860 ± - 1st salt, 2170 -
GUELPH - LOCKPORT							2154 - 2367 SW at 2290 100 gal per hr		2685 - 2930 SW at 2877	2330 ± - Black water at 2475
GRIMSBY							2492 - 2560 223 Mcf gas, AF		3050 - 3167 Gas, 3102-24	2665 ± - 60 Mcf gas
WHIRLPOOL							2650 - 2655		3212 - 3223	2835 ± -
QUEENSTON							2655 - 3508 SW at 2680		3223 -	2843 ± -
TOTAL DEPTH	2517	2445	2403	2308	2425	2536	5098	1723	3265	2850
DEEPEST FORMATION REACHED	Bass Island	Oriskany	Oriskany	Bass Island	Oriskany	Bass Island	Gatesburg	Oriskany	Queenston	Queenston
RESULT	Salt water in Oriskany Abandoned	Show of gas Salt water in Oriskany Abandoned	1.0 F 4700 Mcf gas RP 422 psi 15 min.	Salt water in Oriskany Abandoned	1.0 F 8086 Mcf gas RP 421 psi 35 hrs. SW 2423-2425	Salt water in Oriskany Abandoned	Reedsville, 3508 - Utica, 4155 - Trenton-BR, 4291 - 10 Mcf gas at 4299 Gatesburg, 5066 - SW, 5081-5098 Abandoned	Salt water in Oriskany Abandoned	2304 Mcf gas, AF RP 965 psi, 68 hrs Plugged back to 3150; shut in Discovery Well Roberts Pool	900 Mcf gas AF RP 855 psi 67 hrs Discovery Well Pierce Pool

TABLE 15
SHEET 48

ERIE COUNTY

QUADRANGLE	Girard	Girard	North East	North East	North East	North East	North East	North East	North East	North East
QUADRANGLE NUMBER	30	31	13	14	15	16	17	18	19	20
NAME OF WELL	Korynoski (Anna Packon) 1	Carl Huston 1	Truesdail 1	Carl Winkleman 1	Evans 1	Applebee 1	L Thompson 1	M K Bonney 1	Jas Henderson 1	Pa Game Lands 1
OPERATOR	Worldwide Pet. Corp.	Paul Britton et al	G Shrack et al	E.W. Ewing	Olson et al	Keta Gas & Oil Co.	Flanigan et al	Geo Olson et al	Pa Gas Co No. 1545	Benedum Trees Co.
TOWNSHIP	Conneaut	Conneaut	Venango	Greene	Venango	Venango	Venango	Venango	Venango	Greenfield
LATITUDE	5300 ft. N. 41°55'	12,500 ft N. 41°50'	4800 ft. N 42°00'	16,000 ft. S. 42°05'	14,500 ft. N. 42°00'	12,300 ft. S. 42°05'	16,500 ft. S. 42°05'	17,600 ft. S. 42°05'	100 ft. N. 42°05'	12,300 ft. S 42°10'
LONGITUDE	6300 ft. W. 80°20'	4500 ft. W. 80°30'	7700 ft. W. 79°50'	8400 ft. W. 79°55'	8500 ft. E. 79°55'	7500 ft. E. 79°55'	6100 ft. E. 79°55'	7900 ft. E. 79°55'	8300 ft. W. 79°50'	2000 ft. W. 79°50'
DATE COMPLETED	9 - 26 - 59	9 - 18 - 59	6 - 29 - 56	2 - 17 - 56	12 - 7 - 56	3 - 14 - 57	4 - 18 - 57	9 - 23 - 58	6 - 11 - 58	8 - 27 - 58
ELEVATION	852	958 DF	1510	1298	1503	1448 DF	1420	1492	1391	1456
TULLY	1620 - 1653		2384 - 2481	2061 - 2153	2292 -	2235 -	2203 -	2288 -	2160 - 2245	2111 - 2196
ONONDAGA	1801 -	1920 -	2629 - 2868	2284 -	2524 -	2465 -	2430 -	2511 -	2387 - SSG at 2450	2347 -
ORISKANY	2072 - 2075	2212 - 2222 SG, SW at 2212	Sandstone absent	2533 - SW at 2533	2762 - 2767	2717 - 2720	2685 - 2593 9 gals SW 13 hrs	2747 - 2753	2635 -	2586 - 2591
BASS ISLAND	2075 - 1500 ft SW at 2080	2222 -	SG at 2868-75		2767 -	2720 - SG at 2743	2693 - SSO, 20 gals SW	2753 - 2813 SO, 2798-2813	2639 -	2591 - 2662
SALINA	2172 -	2290 ± - Salt, 2282-2755	2930 ± - Salt, 3339-3372					2813 -	2705 -	2662 -
GUELPH - LOCKPORT	2665 - Black water at 2804-2816	2805 ± - Black water at 2977	3440 - Black water & SG at 3609						3090 ± - Black water at 3242	3051 - Black water at 3204
GRIMSBY	3030 - 3132 ± 10 Mcf gas at 3092-3110	3195 - 10 Mcf gas, BF at 3256, SO at 3267	3820 -						3453 - 3560 SG at 3524	3420 - 3530 SG
WHIRLPOOL		3364 - 3370							3598 - 3608 SSG at 3608	3558 - 3580
QUEENSTON		3370 -							3608 -	3580 -
TOTAL DEPTH	3160	3380	3825	2537	2796	2753	2740	2849	3623	3583
DEEPEST FORMATION REACHED	Cabot Head	Queenston	Grimsby	Oriskany	Bass Island	Bass Island	Bass Island	Salina	Queenston	Queenston
RESULT	403 Mcf gas 40 Bbls SW AF PB to 3115 Discovery Well Lexington Pool	2200 Mcf gas AF RP 950 psi 7 days	Former TD 3560 Drilled deeper 3-21-58 by F. Butts et al Abandoned	1000 ft SW in Oriskany Abandoned	Dry Abandoned	300 Mcf gas and SW AF RP 560 psi, 19 hrs Abandoned	1 bbl oil, SG, AF RP 105 psi, 65 hrs SW at 2691-96 and 2709-17 Abandoned	Show of oil Abandoned	Show of gas Abandoned	Show of gas Abandoned

TABLE 15
SHEET 49

ERIE COUNTY

QUADRANGLE	North East	North East	North East	North East (Offshore)
QUADRANGLE NUMBER	21	22	23	24
NAME OF WELL	J. Thompson 1	Henderson 1	E & K. May 1	Pa. Offshore Block 2, No.1
OPERATOR	G.E. Olson et al	J.P. Pitonyak et al	Pa. Gas Co. No. 1584	NYSNG Corp (N664)
TOWNSHIP	Venango	Greenfield	Venango	in Lake Erie
LATITUDE	15,500 ft. S. 42°05'	11,700 ft. N 42°05'	13,000 ft. S. 42°05'	10,900 ft. N 42°15'
LONGITUDE	7700 ft. E. 79°55'	5400 ft. E. 79°55'	10,200 ft. E. 79°55'	4700 ft. E. 79°55'
DATE COMPLETED	7-17-56	8-14-59	10-15-59	10-5-59
ELEVATION	1491	1415 DF	1379 DF	604 DF
TULLY	2267-	2060-	2171 - 2240	832 - 935
ONONDAGA	2494-	2315-	2400-	1050 - 1312
ORISKANY	2740 - 2744 Gas	2566 - 2571 SW, 2600-05	2648 - 2651	Horizon at 1312
BASS ISLAND	2744-	2571-		1312?-
SALINA				1382 - 1725
GUELPH - LOCKPORT				1725 - 2008 Newburg, 1890- SW at 1909
GRIMSBY				2091-
WHIRLPOOL				Cabot Head, 2188- SG at 2188 Whirlpool, 2225-
QUEENSTON				2238 - 3202
TOTAL DEPTH	2768	2605	2691	4741
DEEPEST FORMATION REACHED	Bass Island	Bass Island	Bass Island	Gatesburg
RESULT	1.0F. 3.99 Mcf gas RP 745 psi 20 hrs.	95 gals SW in 1.4 hrs. To be completed for production of salt water	Show of oil and salt water at 2691 Abandoned	Reedsville, 3202- Utica, 3782 Trenton, 3950- SG at 4119, 4241 Gatesburg, 4703- SW at 4715-23 Abandoned

FAYETTE COUNTY

QUADRANGLE		Confluence	Confluence	Confluence
QUADRANGLE NUMBER		2	3	4
NAME OF WELL		Mueller-Herr 1	Bertha & E G Mueller 1	C. M. Stone 1
OPERATOR		M L & H Co. No 4522	M L & H Co. No. 4557	M L & H Co No. 4519
TOWNSHIP		Stewart	Henry Clay	Stewart
LATITUDE		1800 ft. N 39°50'	3200 ft N 39°50'	9000 ft. S. 39°55'
LONGITUDE		7300 ft. W. 79°25'	2400 ft. W. 79°25'	2900 ft. E. 79°25'
DATE COMPLETED		12-28-59	12-31-59	12-31-59
ELEVATION		1762	2825	2655
TULLY		Horizon at 6295	Horizon at 7270	Hamilton, 7260 - 7720 Marcellus 7720 - 8296
ONONDAGA	LIMESTONE	6525-	8285-	8296-
	CHERT	6841-	8315-	8310-
ORISKANY		7000-	8493 - 8611	
HELDERBERG				
TOTAL DEPTH		7039	8635	8406
DEEPEST FORMATION REACHED		Oriskany	Helderberg	Onondago
RESULT		4800 Mcf gas AF RP 3450 psi 162 hrs. Discovery Well Ohiopyle Field	319 Mcf gas AF RP 3320 psi 119 hrs.	Dry

TABLE 15
SHEET 50

INDIANA COUNTY

QUADRANGLE	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro	Barnesboro
QUADRANGLE NUMBER	1	3	4	5	6	7	8	9	10	11
NAME OF WELL	Lucinda Mitchell 1	Jas Downey 1	M.J. Shankel Estate 1	Jess Ober 1	Bethlehem Cuba Iron Mines Co 1	Herman George 1	Margaret Overdorf 1	James S Blair 1	Chas A Ferrier 1	Stiles 1
OPERATOR	Fairman Drilling Co. (Fryer & Hanson)	Fairman Drilling Co. (T.W Phillips)	Felmont Oil Corp. et al	Pittsburgh Plate Glass Co	Felmont Oil Corp.	Felmont Oil Corp.	T.W Phillips Gas & Oil Co.	Felmont Oil Corp.	Felmont Oil Corp.	N Y S N G Corp (N645)
TOWNSHIP	Pine	Pine	Buffington	Pine	Buffington	Buffington	Buffington	Buffington	Buffington	Buffington
LATITUDE	1650 ft. N. 40°35'	275 ft. N 40°35'	17,200 ft. S. 40°35'	6100 ft. N. 40°35'	3700 ft. N. 40°30'	10,200 ft. N 40°30'	7800 ft. N 40°30'	6550 ft N 40°30'	12,200 ft N 40°30'	2800 ft N 40°30'
LONGITUDE	7600 ft. E. 79°00'	9000 ft. W 78°55'	300 ft. E. 79°00'	4100 ft. W. 78°55'	1600 ft. E. 79°00'	3600 ft. E 79°00'	3600 ft. E. 79°00'	50 ft. E 79°00'	5600 ft. E 79°00'	1000 ft E 79°00'
DATE COMPLETED	10 - 3 - 55	2 - 3 - 56	6 - 14 - 55	4 - 8 - 57	10 - 16 - 57	1 - 15 - 58	4 - 28 - 58	5 - 12 - 58	5 - 17 - 58	7 - 11 - 58
ELEVATION	1665	1927 RT	1608	1932	2014	1990 RT	1983	1803 RT	1858 RT	2047
TULLY	7300 -	7320 -	7390 - 7415	7513 - 7535	7375 - 7420	7515 -	7460 -	7360 - 7450	7543 -	7385 -
ONONDAGA LIMESTONE	8038 -	8005 -	8161 -	8282 -	8114 -	8259 -	8270 -	8111 -	8246 -	8113 -
ONONDAGA CHERT		8065 -		8296 -	8128 -	8275 -	8289 - 700 Mcf at 8304	8120 -	8253 -	8130 -
ORISKANY	8163 - SG	8138 - 8158	8290 - 8306	8432 - 8463 SG, SW at 8457	8227 -	8393 - 8412	8394 -	8233 -	8356 -	8233 - 8254
HELDERBERG		8158 -	8306 -	8463 -		8412 -				8254 -
TOTAL DEPTH	8199	8179	8317	8506	8232	8432	8410	8260	8385	8257
DEEPEST FORMATION REACHED	Helderberg?	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Oriskany	Helderberg?	Helderberg?	Helderberg
RESULT	475 Mcf gas AF RP 3750 psi	Former TD 8158 6-25-54 Redrilled by Fairman 750 Mcf gas AF	200 Mcf gas after perforating	64 Mcf gas 2 bbls SW AF Blew down to 38 Mcf gas Abandoned	4100 Mcf gas AF RP 4241 psi 43 hrs.	3250 Mcf gas AF RP 4013 psi 70 hrs.	4284 Mcf gas natural RP 4250 psi 24 days	8000 Mcf gas AF RP 4169 psi 9 days	16,000 Mcf gas AF RP 4045 psi 24 hrs.	2394 Mcf gas AF RP 3890 psi 91 hrs

RT - rotary table

TABLE 15
SHEET 51

INDIANA COUNTY

QUADRANGLE	Barnesboro	Barnesboro	Barnesboro	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge
QUADRANGLE NUMBER	12	13	14	1	2	3	4	5	6	7
NAME OF WELL	Stutzman 1	McCreery 1	Alex Bennett 1	Florence Boden et al 1	Eliz. Carney 1	G L Stewart-R & P Coal Co. 1	L Neal 3	R & P Coal Co. 2	Florence Boden et al 1 B	Harry L. George 1
OPERATOR	NYSNG Corp (N661)	Mc Creery	NYSNG Corp (N652)	NYSNG Corp (N514)	The Peoples Nat. Gas Co.	M L & H Co.	T.W. Phillips Gas & Oil Co.	M L & H Co.	NYSNG Corp (N522)	The Peoples Nat. Gas Co.
TOWNSHIP	Buffington	Buffington	Buffington	Young	Armstrong	Young	Young	Young	Young	Armstrong
LATITUDE	11,800 ft. N 40° 30'	13,900 ft. S. 40° 35'	7400 ft. N. 40° 30'	7300 ft. S. 40° 35'	1475 ft. S. 40° 35'	5300 ft. S. 40° 35'	4000 ft. S. 40° 35'	6500 ft. S. 40° 35'	6150 ft. S. 40° 35'	600 ft. N. 40° 35'
LONGITUDE	7000 ft. E. 79° 00'	8500 ft. E 79° 00'	5600 ft. E. 79° 00'	10,500 ft. E. 79° 20'	8975 ft. W. 79° 15'	12,400 ft. W. 79° 15'	11,000 ft. E. 79° 20'	14,000 ft. W. 79° 15'	10,250 ft. W. 79° 15'	7600 ft. W. 79° 15'
DATE COMPLETED	10 - 3 - 58	11 - 26 - 58	3 - 14 - 59	12 - 24 - 56	11 - 17 - 56	9 - 21 - 56	12 - 20 - 56	1 - 17 - 57	1 - 28 - 57	2 - 4 - 57
ELEVATION	1810	1916	2027	1167	1339	1212	1248	1182	1112	1306
TULLY	7485 -	7619 -	7482 -	6710 - 6820	6878 - 6998	6772 - 6890	6760 - 6800	6866 -	6612 - 6718	6859 - 6980
ONONDAGA LIMESTONE	8237 -	8402 -	8328 -	7327 -	7428 -	7315 -	7398 -	7450 -	7198 -	7427 -
ONONDAGA CHERT	8250 -	8419 -	8342 -	7343 -	7445 -	7339 -	7415 -	7474 -	7214 -	7443 -
ORISKANY	8361 - 8377	8528 - SW		7491 - 7519	7575 -	7464 - 7486	7560 - 7583	7616 - 7635 97 Mcf gas 7527 - 7618	7352 - 7380	7578 -
HELDERBERG	8377 -			7519 -		7486 -	7583 -	7635 -	7380 -	
TOTAL DEPTH	8378	8542	8398	7566	7595	7489	7585	7711	7381	7610
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Onondaga	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	23 gals SW in 18 hrs. AF Abandoned	200 Mcf gas and salt water AF Abandoned	150 Mcf gas 1000 ft. SW at 8393 Abandoned	348 Mcf gas AF RP 3150 psi 52 hrs.	2000 Mcf gas from Bradford I.O.F 2214 Mcf gas from chert and Oriskany RP 4350 psi, 40 hr 6000 Mcf gas AF, 3 - 8 - 57	9,000 Mcf gas AF RP 4230 psi 45 hrs. Discovery Well Jacksonville Field	3600 Mcf gas AF	2381 Mcf gas AF RP 3280 psi 15 hrs.	550 Mcf gas AF RP 3950 psi 120 hrs.	4694 Mcf gas AF RP 3950 psi 17 hrs.

INDIANA COUNTY

QUADRANGLE	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge
QUADRANGLE NUMBER	8	9	10	11	12	13	14	15	16	17
NAME OF WELL	Victor Martini 1	C.D. Peddicord 1	Geo. Uncaphor 4	Geo. Uncaphor 6	De Vinney 2	R & P Coal Co. 4	Geo Uncaphor 5	Zagurskie 1	Wm George 2	Luigi Azzelio 1
OPERATOR	T W Phillips Gas & Oil Co	NYSNG Corp. (N523)	T W Phillips Gas & Oil Co	James Drlg Co T W Phillips G&O Co formout	M L & H Co and R & P Coal Co	M L & H Co	T W Phillips Gas & Oil Co	Mid-Atlantic Oil & Gas Co	NYSNG Corp. (N536)	James Drilling Co
TOWNSHIP	Armstrong	Armstrong	Armstrong	Armstrong	Armstrong	Young	Armstrong	Armstrong	Armstrong	Young
LATITUDE	750 ft. S. 40° 35'	13,600 ft. N. 40° 35'	3600 ft. S 40° 35'	2200 ft S. 40° 35'	1900 ft S. 40° 35'	8500 ft S 40° 35'	2400 ft S 40° 35'	4700 ft S 40° 35	2700 ft. N. 40° 35'	4000 ft S. 40° 35'
LONGITUDE	9150 ft. W. 79° 15'	700 ft. W. 79° 15'	10,700 ft. W. 79° 15'	10,600 ft. W. 79° 15'	7800 ft. W. 79° 15'	13,800 ft. W. 79° 15'	8900 ft. W 79° 15'	6400 ft. W. 79° 15'	5500 ft W 79° 15'	12,500 ft. W 79° 15'
DATE COMPLETED	1 - 29 - 57	2 - 3 - 57	3 - 8 - 57	3 - 28 - 57	4 - 17 - 57	4 - 12 - 57	5 - 24 - 57	7 - 1 - 57	5 - 22 - 57	5 - 31 - 57
ELEVATION	1256	1135	1213	1314	1203	1222	1457	1426	1458	1177
TULLY	6870 -	6895 - 6995	6845 - 6900	6870 -	6820 -	6857 - 6963	6985 -	7430 - 7545	7002 - 7115	6875 -
ONONDAGA LIMESTONE	7388 -	7472 -	7348 -	7515 -		7468 -	7550 -	8040 -	7570 -	7520 -
ONONDAGA CHERT	7428 -	7488 -	7363 -	7530 -		7485 -	7570 -	8064 -	7583 -	7545 -
ORISKANY	7532 - 7555 Gas, 7540-55	7621 - 7644	7495 - 7520	7685 -		7794 - 7808	7717 - 7737	8180 - 8203 SSW	7710 - 7732	7682 -
HELDERBERG	7555 -	7644 -	7520 -			7808 -	7737 -	8203 -	7732 -	
TOTAL DEPTH	7565	7650	7600	7720	7799	7824	7750	8208	7736	7692
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Hamilton	Helderberg	Helderberg	Helderberg	Helderburg	Oriskany
RESULT	5982 Mcf gas AF RP 3800 psi 94 hrs.	1100 Mcf gas AF RP 4050 psi 9 days	1619 Mcf gas AF RP 3225 psi 23 hrs.	1103 Mcf gas AF	Faulted — Did not reach Onondaga P.B to 2750 Gas at 2748 in Bradford 2010 Mcf, AF RP 845 psi, 90 hr	PB to 7500± 155 Mcf gas AF RP 3600 psi 48 hrs.	681 Mcf gas AF RP 2575 psi 48 hrs.	Plugged back to 2300 to frac shallow sand 43 Mcf gas AF	1517 Mcf gas AF RP 3540 psi 37 hrs.	1150 Mcf gas AF RP 3150 psi 24 hrs

TABLE 15
SHEET 53

INDIANA COUNTY

QUADRANGLE	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge
QUADRANGLE NUMBER	18	19	20	21	22	23	24	25	26	27
NAME OF WELL	Wm George 1	Florence Boden et al 2 A	J R Learn 1	R & P Coal Co 3	Florence Boden et al 2 B	De Vinney 1	Victor Martini 2	F L, JC & Paul Stewart 2	R & P Coal Co 5	Martha Neal 1
OPERATOR	N Y S N G Corp (N 524)	N Y S N G Corp. (N 542)	N Y S N G Corp. (N 545)	M L & H Co.	N Y S N G Corp. (N 543)	M L & H Co and R & P Coal Co.	James Drlg Co. T W Phillips G & O Co. formerly	James Drilling Co.	M L & H Co.	James Drilling Co.
TOWNSHIP	Armstrong	Armstrong	Young	Young	Young	Armstrong	Armstrong	Armstrong	Armstrong	Armstrong
LATITUDE	1000 ft. N. 40°35'	5600 ft. S. 40°35'	5200 ft. S. 40°35'	10,800 ft S. 40°35'	7800 ft. S. 40°35'	400 ft. S. 40°35'	500 ft. N 40°35'	4900 ft. S. 40°35'	6400 ft. S. 40°35'	4350 ft. S. 40°35'
LONGITUDE	6300 ft W 79°15'	9500 ft. W. 79°15'	7600 ft. E 79°20'	14,000 ft. W 79°15'	11,500 ft. W. 79°15'	8100 ft. W. 79°15'	8900 ft. W. 79°15'	9300 ft. W. 79°15'	11,000 ft. W. 79°15'	10,500 ft. W. 79°15'
DATE COMPLETED	8 - 13 - 57	6 - 15 - 57	7 - 27 - 57	7 - 6 - 57	7 - 29 - 57	7 - 22 - 57	7 - 22 - 57	8 - 22 - 57	9 - 20 - 57	9 - 7 - 57
ELEVATION	1268	1141	1172	1173	1214	1291	1390	1177	1243	1251
TULLY	6917 -	6675 -	6940 - 7015	6680 - 6785	6714 -	6893 - 7030	6950 -	6752 - 6772	Repeated by faulting 6735 - 6840 6910 - 6985	6895 -
ONONDAGA LIMESTONE	7735 -	7224 -	7465 -	7245 -	7314 -	7568 -	7500 -	7305 -	7522 -	
ONONDAGA CHERT	7763 -	7237 -	7483 -	7557 -	7335 -	7590 -	7520 -	7325 -	7538 -	
ORISKANY	8070 - 8104	7373 - 7399	7620 - 7648	7395 - 7408	7470 - 7498	7753 - 7777	7656 - 7676	7375 - 7400	7756 - 7776	
HELDERBERG	8104 -	7399 -	7648 -	7408 -	7498 -	7777 -	7676 -	7400 -	7776 -	
TOTAL DEPTH	8106	7401	7649	7411	7500	7783	7677	7590	7784	7995
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Hamilton
RESULT	Fractured chert and Oriskany also shallow sand at 2770 18 gals SW in 36 hrs at 7750 Abandoned	1500 Mcf gas AF RP 2220 psi 48 hrs.	343 Mcf gas AF RP 3500 psi 38 days	1056 Mcf gas AF RP 3785 psi 72 hrs.	2421 Mcf gas AF RP 2485 psi 13 hrs.	177 Mcf gas AF RP 2160 psi 18 hrs.	460 Mcf gas AF RP 2750 psi 24 hrs.	4100 Mcf gas AF RP 2650 psi 16 hrs.	23 Mcf gas AF chert & Oriskany PB to frac shallow sand 147 Mcf gas, AF RP 975 psi 16 hrs.	Dry Faulted? Plugged back to 2830 to frac shallow sand 660 Mcf gas, AF RP 750 psi 24 hrs.

TABLE 15
SHEET 54

INDIANA COUNTY

QUADRANGLE	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge	Elders Ridge
QUADRANGLE NUMBER	28	29	30	31	32	33	34	36	37	38
NAME OF WELL	Martha Neal 3	Laura Graham 1	Orville M. Watson 1	N. Lessick 1	Harry L. George 2	W. Plymire 1	Emil K Abel 1	John Peterman 1	M.B. Bowman 1	E.E. Dible 1
OPERATOR	James Drilling Co	Sam Jack	T W Phillips Gas & Oil Co	Fairman Drilling Co	NYSNG Corp (N551)	Fairman Drilling Co	NYSNG Corp (N653)	T W Phillips Gas & Oil Co	NYSNG Corp N686	NYSNG Corp (N695)
TOWNSHIP	Armstrong	Armstrong	Armstrong	Young	Armstrong	Armstrong	Armstrong	Armstrong	Armstrong	Armstrong
LATITUDE	3900 ft. S. 40°35'	7000 ft. S. 40°35'	3100 ft. N. 40°35'	11,900 ft. S 40°35'	2300 ft. N. 40°35'	7800 ft. N. 40°35'	6600 ft. N. 40°35'	6050 ft. N. 40°35'	9100 ft. N. 40°35'	6800 ft. N. 40°35'
LONGITUDE	9500 ft. W. 79°15'	10,000 ft. W. 79°15'	3900 ft. W. 79°15'	15,700 ft. W. 79°15'	7200 ft. W. 79°15'	9300 ft. W. 79°15'	2500 ft W 79°15'	3000 ft W 79°15'	500 ft W 79°15'	10,200 ft W 79°15'
DATE COMPLETED	11 - 15 - 57	11 - 24 - 57	2 - 21 - 58	5 - 23 - 58	6 - 11 - 58	8 - 27 - 58	10 - 3 - 58	12 - 11 - 58	1 - 16 - 59	3 - 12 - 59
ELEVATION	1433	1230	1408	1334	1509	1389	1406	1403	1349	1382
TULLY	7025 - 7250	6840 - 6980	7089 - 7235	7023 -	7098 -	7125 - 7217	7025 -	7097 -	7039 -	7087 -
ONONDAGA LIMESTONE		7493 -		7612 -	7674 -	7687 -	7593 -	7659 -	7616 -	7645 -
ONONDAGA CHERT		7508 -		7625 -	7689 - 7852	7701 -	7605 -	7691 -	7631 - 160 Mcf at 7711	7660 -
ORISKANY				7770 - 7788	7821 - 7852		7731 - 7745		7759 - 7775 46 Mcf gas	7799 - 7823 Gas, 7809 - 13
HELDERBERG				7788 -	7852 -		7745 -		7775 -	7823 -
TOTAL DEPTH	7900	7529	7820	7800	7860	7877	7747	7787	7776	7825
DEEPEST FORMATION REACHED	Hamilton	Onondaga	Hamilton	Helderberg	Helderberg	Helderberg	Helderberg	Onondaga	Helderberg	Helderberg
RESULT	Plugged back to frac shallow sand Results unknown	400 Mcf gas AF RP 2600 psi 4 days	SG at 1175 Plugged back to complete as shallow well	165 Mcf gas AF a little SW Abandoned	1600 Mcf gas AF RP 2250 psi 48 hrs	1309 Mcf gas AF RP 3525 psi 11 days	5305 Mcf gas AF RP 3440 psi 96 hrs.	1500 Mcf gas AF RP 1340 psi 2 hrs.	1992 Mcf gas AF RP 3300 psi 46 hrs.	830 Mcf gas AF RP 3010 psi 6 days

TABLE 15
SHEET 55

INDIANA COUNTY

QUADRANGLE	Elders Ridge	Elders Ridge	Indiana	Indiana	Indiana	Indiana	Indiana	Indiana	Indiana	New Florence
QUADRANGLE NUMBER	39	40	2	3	4	5	6	7	8	5
NAME OF WELL	R S Uncaphor 1	O M Watson 1	Susie Yosurak 1	Fred A Musser 1	Silas C. Streams 1	E A Young 1	J T Jackson 4	Beulah Stiles 2	J T Jackson 6	Isaac R Smith 1
OPERATOR	T W Phillips Gas & Oil Co.	NYSNG Corp (N553)	Columbian Carbon Co.	Columbian Carbon Co.	Columbian Carbon Co.	Felmont Oil Corp.	T W Phillips Gas & Oil Co.	NYSNG Corp (N672)	T W Phillips Gas & Oil Co.	Columbian Carbon Co
TOWNSHIP	Armstrong	Armstrong	Armstrong	Armstrong	Washington	Buffington	Brush Valley	Buffington	Brush Valley	Brush Valley
LATITUDE	8300 ft. N. 40° 35'	5000 ft. N 40° 35'	15,500 ft. S. 40° 40'	8900 ft. S. 40° 40'	13,300 ft. S. 40° 45'	3500 ft. N. 40° 30'	4800 ft. N. 40° 30'	700 ft. N 40° 30'	1600 ft. N 40° 30'	6900 ft. S 40° 30'
LONGITUDE	1600 ft W 79° 15'	5050 ft W 79° 15'	500 ft E 79° 15'	3200 ft. E 79° 15'	7600 ft W 79° 10'	1700 ft W 79° 00'	3000 ft W 79° 00'	500 ft W 79° 00'	3100 ft W 79° 00'	6600 ft W 79° 00'
DATE COMPLETED	5 - 1 - 59	6 - 22 - 59	10 - 10 - 56	9 - 24 - 57	9 -25 - 57	8 - 22 - 58	9 - 12 - 58	11 - 6 - 58	12 - 3 - 58	9 - 30 - 56
ELEVATION	1382	1448	1296	1343	1162	1961	1830	1956	1786	1415
TULLY	7060 - 7143	7064 -	7050 - 7146	7147 - 7245	6773 -	7430 - 7475	7467 -	7290 -	7275 - 7385	6885 -
ONONDAGA LIMESTONE	7663 -	7661 -	7618 -	7735 -	7419 -	8167 -	8228 -	8024 -		7575 -
ONONDAGA CHERT	7672 -	7678 -	7632 -	7748 - Gas at 7752		8183 -	8243 -	8040 -		7601 -
ORISKANY	7800 -	7805 - 7828 Gas, 7805 - 11	7757 - 7787 14 Mcf at 7759	7874 - 7903	7722 -	8288 - SSG	8349 - 8369	8138 - 8158		7708 - 7746 SG
HELDERBERG		7828 -	7787 -	7903 -			8369 -	8158 -		7746 -
TOTAL DEPTH	7812	7831	7802	7905	7740	8315	8376	8160	8281	7754
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Oriskany	Helderberg	Helderberg	Hamilton	Helderberg
RESULT	685 Mcf gas AF RP 2250 psi 16 hrs.	493 Mcf gas AF RP 2030 psi 48 hrs.	3610 Mcf gas AF RP 3950 psi 18 hrs.	Fractured chert & shallow sand 933 Mcf gas from chert 198 Mcf gas from shallow sand	Dry below Tully Plugged back to 3379 to frac shallow sand 60 Mcf gas, AF RP 850 psi, 72 hr. Abandoned	4500 Mcf gas AF RP 3275 psi 18 hrs.	2500 Mcf gas AF RP 3400 psi 24 hrs.	2698 Mcf gas AF RP 3565 psi 66 hrs.	Shale 7385-8281 Dry Abandoned	1540 Mcf gas AF RP 4250 psi 72 hrs.

TABLE 15
SHEET 56

INDIANA COUNTY

QUADRANGLE	New Florence	New Florence	New Florence	New Florence	New Florence	New Florence	New Florence	New Florence	Punxsutawney	Punxsutawney
QUADRANGLE NUMBER	6	7	8	9	10	11	12	13	4	5
NAME OF WELL	J H Stewart 3	Sam Hutchison 1	Vinton Land Co. 1	J. T. Jackson 5	Stephens & Davis 1	Vinton Land Co 2	D. Maidenburg 1	R & F Mikolic (J. Crespo) 1	Farmers & Miners Trust Co. 1	H Gernandt 1
OPERATOR	T. W. Phillips Gas & Oil Co.	Columbian Carbon Co.	Lee E. Minter	T W Phillips Gas & Oil Co.	T W Phillips Gas & Oil Co.	Lee E Minter et al	Felmont Oil Corp.	Sam Jack	Columbian Carbon Co.	Fairman Drilling Co
TOWNSHIP	Brush Valley	Wheatfield	Buffington	Brush Valley	Brush Valley	Brush Valley	Brush Valley	Buffington	Banks	Grant
LATITUDE	5350 ft S. 40°30'	16,000 ft. S 40°30'	250 ft S 40°30'	350 ft S 40°30'	2650 ft S 40°30'	5100 ft S 40°30'	8200 ft S 40°30'	600 ft S 40°30'	9400 ft S 40°55'	8500 ft S 40°50'
LONGITUDE	5500 ft. W 79°00'	11,900 ft W. 79°00'	1500 ft W 79°00'	3350 ft W 79°00'	3800 ft W 79°00'	8800 ft W 79°00'	8400 ft W 79°00'	1100 ft W 79°00'	1500 ft. W 78°50'	7900 ft E 79°00'
DATE COMPLETED	7 - 11 - 57	9 - 6 - 57	8 - 18 - 58	10 - 24 - 58	11 - 15 - 58	12 - 29 - 58	1 - 3 - 59	3 - 23 - 59	10 - 20 - 55	6 - 10 - 55
ELEVATION	1723	1584	1874	1928	1682	1625	1483	1917	1963	1777
TULLY	7115 - 7140	7356 -	7144 -		7120 -	7245 -	7055 - 7105	7227 - 7255	6770 -	6901 -
ONONDAGA LIMESTONE	7900 -	8107 -	7865 -	8005 -	7957 -	7959 -	7785 -	8000 -	7475 -	7565 -
ONONDAGA CHERT	7920 - Gas at 7933	8128 - SG at 8143 & 8196	7880 -	8015 - Gas at 8028 & 8051	7977 - Gas at 8000	7985 -	7798 -	8018 -	7485 -	7575 -
ORISKANY		8352 - 8377	7996 - 8015					8125 - 8144	7566 - 7570	7665 -
HELDERBERG		8377 -	8015 -					8144 -	7570 -	7670 -
TOTAL DEPTH	8005	8388	8017	8110	8002	8045	7895	8165	7717	7687
DEEPEST FORMATION REACHED	Onondaga	Helderberg	Helderberg	Onondaga	Onondaga	Onondaga	Onondaga	Helderberg	Helderberg	Helderberg
RESULT	1 OF 2398 Mcf gas RP 4350 psi 7 days	21 Mcf gas 300 ft SW, AF RP 2800 psi 8 days Abandoned	2000 Mcf gas AF RP 3905 psi 5 days	2652 Mcf gas natural RP 1550 psi 1¼ hrs.	3062 Mcf gas natural RP 3800 psi 4 days	450 Mcf gas AF RP 3860 psi 4 days	1050 Mcf gas AF RP 3493 psi 45 hrs.	860 Mcf gas AF RP 3040 psi 4 days	431 Mcf gas AF RP 3820 psi 48 hrs. Former TD 7600 No increase after deepening	Shot & acidized 7588 - 7602 3 Mcf gas, AS 167 Mcf gas & SW, AF RP 2400 psi 2 hrs Abandoned

TABLE 15
SHEET 57

INDIANA COUNTY

QUADRANGLE		Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney						
QUADRANGLE NUMBER		22	28	31	35						
NAME OF WELL		Farmers & Miners Trust Co. B-1	Anna J. Bair 1	James Neal 1	H. B. Brooks 1						
OPERATOR		Columbian Carbon Co.	Columbian Carbon Co.	Fryer and Hanson	James Drilling Co.						
TOWNSHIP		Banks	Banks	Banks	Banks						
LATITUDE		6200 ft. S. 40°55'	7500 ft. S. 40°55'	7700 ft. S. 40°55'	4300 ft. S 40°55'						
LONGITUDE		1500 ft. W. 78°50'	10,700 ft. E. 78°50'	10,400 ft. W. 78°50'	9300 ft. W. 78°50'						
DATE COMPLETED		5 - 21 - 56	4 - 11 - 57	3 - 18 - 58	8 - 19 - 59						
ELEVATION		1850	1967	1905	1865 DF						
TULLY			6780 - 6960	6765 -	6740 - 6855						
ONONDAGA	LIMESTONE	7387 -	7448 -	7555 -	7416 -						
	CHERT	7397 -	7457 -	7567 - SW at 7590	7431 -						
ORISKANY		7472 - 7476	7528 -		7502 -						
HELDERBERG		7476 -	7538 -								
TOTAL DEPTH		7528	7555	7592	7505						
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Onondaga	Oriskany						
RESULT		1586 Mcf gas AF R.P 3550 psi 6 days	1708 Mcf gas AF R P 3675 psi 48 hrs.	Salt water in Onondaga chert Abandoned	800 Mcf gas and SW AF Plugged back to 3037 to frac shallow sand 315 Mcf gas, AF RP 1140 psi 68 hrs						

TABLE 15
SHEET 58

JEFFERSON COUNTY

QUADRANGLE	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney
QUADRANGLE NUMBER	6	7	17	18	19	20	21	23	24	25
NAME OF WELL	Clair K Reed 1	H.C. McClure 1	H.C McClure 2	Nolph 1	Punxsutawney Beef & Prov Co. 1	F. M. Sheesley 1	Clair Reed 1	S.E McCormich 1	Nolph 2	Stumph Heirs 1
OPERATOR	Fairman Drilling Co.	Columbian Carbon Co.	Columbian Carbon Co.	Fairman Drilling Co.	NYSNG Corp (N494)	Columbian Carbon Co.	Brummage & Son	T W Phillips Gas & Oil Co.	Fairman Drilling Co.	Fairman Drilling Co
TOWNSHIP	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill	Gaskill
LATITUDE	6600 ft. N 40°55'	9000 ft. N. 40°55'	9350 ft. N. 40°55'	8000 ft. N. 40°55'	6000 ft N 40°55'	3600 ft N. 40°55'	9700 ft. N 40°55'	2350 ft N 40°55'	8150 ft. N 40°55'	5350 ft N 40°55'
LONGITUDE	5850 ft. E. 78°50'	6300 ft. E. 78°50'	3600 ft. E. 78°50'	4000 ft. E. 78°50'	11,600 ft. W. 78°50'	3000 ft. W. 78°50'	2200 ft. E. 78°50'	3700 ft. W. 78°50'	1800 ft. E. 78°50'	200 ft. W. 78°50'
DATE COMPLETED	5 - 10 - 55	12 - 20 - 55	7 - 25 - 56	7 - 27 - 56	10 - 6 - 56	9 - 22 - 56	5 - 10 - 57	1 - 17 - 57	3 - 10 - 57	4 - 8 - 57
ELEVATION	1820 DF	1880	1747	1732	1704	1874	1678	1887	1604	1780
TULLY	6780 -	7010 -	6565 - 6748	6558 -	6852 - 7015	6740 - 6950	6558 -	6818 - 6960	6500 -	6639 -
ONONDAGA LIMESTONE	7424 -	7938 -	7282 -	7351 -	7515 -	7426 -	7294 -	7494 -	7200 -	7335 -
ONONDAGA CHERT	7432 -	7975 -	7299 -	SG at 7396	7539 - SW at 7570	7442 -	7314 -			7353 -
ORISKANY	7504 - 7511	8091 - 8096	7362 - 7370		7607 - 7625	7518 - 7526	7382 - 7393	7594 - 7601	7285 - 7293	7420 - 7426
HELDERBERG	7511 -	8096 -	7370 -		7625 -	7526 -	7393 -	7601 -	7293 -	7426 -
TOTAL DEPTH	7611	8110	7400	7460	7630	7551	7425	7606	7310	7428
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	990 Mcf gas AF RP 3850 psi 4 days Discovery Well Reed-Deemer Pool	I.O.F 2843 Mcf gas RP 3720 psi 4 days	1812 Mcf gas AF RP 3650 psi 4 days	80 Mcf gas AF Abandoned	1 bailer SW per hr. Abandoned	3860 Mcf gas AF RP 3800 psi 36 hrs.	380 Mcf gas AF RP 1360 psi 11 hrs.	1600 Mcf gas AF RP 3225 psi 12 days	1500 Mcf gas AF RP 2970 psi 6 days	300 Mcf gas AF RP 3010 psi 25 days

TABLE 15
SHEET 59

JEFFERSON COUNTY

QUADRANGLE		Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney	Punxsutawney					
QUADRANGLE NUMBER		26	27	29	30	34					
NAME OF WELL		F.M. Sheesley 2	H.C. McClure 3	Ray C. Conrad 1	Mosteller 1	James C. White 1					
OPERATOR		Columbian Carbon Co.	Columbian Carbon Co.	Columbian Carbon Co.	Fairman Drilling Co.	Swan-Finch and Keta Gas & Oil Co.					
TOWNSHIP		Gaskill	Gaskill	Gaskill	Gaskill	Gaskill					
LATITUDE		6100 ft. N. 40°55'	11,700 ft. N. 40°55'	1150 ft. S. 40°55'	2800 ft. N. 40°55'	3000 ft. S. 40°55'					
LONGITUDE		1400 ft. E. 78°50'	5600 ft. E. 78°50'	1500 ft. W. 78°50'	3300 ft. E. 78°50'	9200 ft. W. 78°50'					
DATE COMPLETED		2-13-57	2-9-57	5-10-57	6-21-57	3-19-59					
ELEVATION		1774	1824	1953	1933	1852					
TULLY		6620-6790	6614-6794	6835-7000	6765-	6738-					
ONONDAGA	LIMESTONE	7345-	7372- 7419-	7528-	7480-	7410-					
	CHERT	7358-	7392- 7437-	7546-	7496-	7427-					
ORISKANY		7437-7442	7506-7516	7618-	7566-	7488- 11 Mcf at 7491					
HELDERBERG		7442-	7516-	7628-							
TOTAL DEPTH		7460	7604	7633	7569	7495					
DEEPEST FORMATION REACHED		Helderberg	Helderberg	Helderberg	Oriskany	Oriskany					
RESULT		18 Mcf gas and SW, AF Plugged back to 3118 to frac shallow sand 253 Mcf gas, AF RP 1150 psi 36 hrs.	794 Mcf gas AF RP 2450 psi 48 hrs Faulted in Onondaga	569 Mcf gas AF RP 3560 psi 10 days	200 Mcf gas AF	1107 Mcf gas AF RP 2495 psi 7 days					

TABLE 15
SHEET 60

	JUNIATA COUNTY			LACKAWANNA COUNTY				LAWRENCE COUNTY		
QUADRANGLE	East Waterford			Pittston				Zelienople		
QUADRANGLE NUMBER	2			1				6		
NAME OF WELL	Wm Rambler 1			L Richards 1				J A Book 1		
OPERATOR	Don Waggoner			Transcontinental Production Co.				T. W. Phillips Gas & Oil Co		
TOWNSHIP	Tuscarora			Ransom				Slippery Rock		
LATITUDE	3600 ft. N. 40° 25'			1000 ft. S. 41° 25'				2100 ft. S 41° 00'		
LONGITUDE	2300 ft. E 77° 35'			2300 ft E 75° 50'				6650 ft E 80° 15'		
DATE COMPLETED	8 - 29 - 58			11 - 21 - 56				6 - 22 - 56		
ELEVATION	650			1031				1173		
TULLY				5235 -				4284 - 4310		
ONONDAGA				7448 -				4450 - 4620		
ORISKANY	1307 -			absent				4620 - 4635 SG at 4622		
HELDERBERG				8248? -						
TOTAL DEPTH	5205			8623				4850		
DEEPEST FORMATION REACHED	Lower Wills Creek			Helderberg?				Salina?		
RESULT	Water at 1700 SG at 3410 sand at 4605 Abandoned			Plugged back to 3600 for shallow gas 300 Mcf gas RP 350 psi				No increase in gas AF 5 gals SW in 5 1/2 hrs at 4625 Abandoned		

TABLE 15
SHEET 61

LUZERNE COUNTY

QUADRANGLE	Harvey Lake	Wilkes-Barre		
QUADRANGLE NUMBER	1	1		
NAME OF WELL	Goodwin 1	Parvin Good 1		
OPERATOR	Farmers Gas & Oil Co.	United Producing Co., Inc		
TOWNSHIP	Lehman	Dorrance		
LATITUDE	9300 ft. N. 41°15'	13,200 ft. S. 41°10'		
LONGITUDE	1100 ft. W. 76°05'	2300 ft. E. 76°00		
DATE COMPLETED	11 - 28 - 58	8 - 15 - 59		
ELEVATION	1236	1070 DF.		
TULLY	4440 -	3297 - 3445?		
ONONDAGA				
ORISKANY		absent		
HELDERBERG-KEYSER		5967 - 6082		
TONOLOWAY		6082 - 6160		
WILLS CREEK		6160 - 6655		
BLOOMSBURG		6655 - 7140		
MCKENZIE		7140 - 7233		
KEEFER		7233 - 7256		
ROSE HILL		7256 -		
TOTAL DEPTH	4757	7583		
DEEPEST FORMATION REACHED	Hamilton	Rose Hill		
RESULT	Dry Abandoned	Dry Abandoned		

LYCOMING COUNTY

QUADRANGLE	La Porte	Trout Run	
QUADRANGLE NUMBER	1	1	
NAME OF WELL	Frank Tranor 1	E E Hughes 1	
OPERATOR	Tranor et al	Godfrey L Cabot, Inc	
TOWNSHIP	Jordan	Cogan House	
LATITUDE	7500 ft. N. 41°15'	6400 ft. N. 41°25'	
LONGITUDE	4350 ft. E. 76°30'	10,200 ft. W. 77°10'	
DATE COMPLETED	9 - 7 - 56	Re-activated 4 - 17 - 59	
ELEVATION	1320	1547	
TULLY	6561? -	6208 - 6332	
ONONDAGA		7408 - 7465	
ORISKANY		Ridgeley, 7465 - 7553 Shriver, 7553 - 7571	
HELDERBERG		7571 -	
TOTAL DEPTH	7169	7579	
DEEPEST FORMATION REACHED	Middle Devonian	Helderberg	
RESULT	Abandoned	Re-drilled by Wm. Hurtt T.D 7558 Did not frac because of mechanical difficulties	

TABLE 15
SHEET 62

	MC KEAN COUNTY					MERCER COUNTY				
QUADRANGLE	Coudersport	Kinzua	Kinzua	Kinzua		Shenango	Shenango	Stoneboro		
QUADRANGLE NUMBER	67	11	12	13		5	6	5		
NAME OF WELL	Al Nolan 1	Warrant 3410 1	Mallory and Williams 1	Lot 4 1		E. McKnight 1	Jamestown Manuf. & Mach. Co 1	V Partridge 1		
OPERATOR	Jack Shuman et al	Thornton Co	W Roeder et al	Thornton et al		Melben Oil Co	Jamestown Manuf & Mach Co	Mercury Oil & Gas Co		
TOWNSHIP	Ceres	Lafayette	Corydon	Hamilton		Pymatuning	Jamestown Boro	Perry		
LATITUDE	1300 ft. S. 41°55'	8100 ft. S. 41°50'	1300 ft. S. 42°00'	4700 ft. N. 41°50'		4800 ft S 41°20'	7150 ft. S. 41°30'	3300 ft N. 41°25		
LONGITUDE	11,000 ft. W. 78°10'	1700 ft. W. 78°45'	1400 ft. E. 78°50'	11,500 ft. W. 78°50'		12,400 ft. W. 78°10'	4350 ft. W. 80°25'	9250 ft. W. 80°10'		
DATE COMPLETED	10 - 26 - 56	12 - 6 - 57	12 - 31 - 57	9 - 19 - 58		10 - 15 - 56	7 - 6 - 59	11 - 20 - 59		
ELEVATION	1871	2040	2000	2052		950	994 DF	1353		
TULLY	4412 - 4449									
ONONDAGA	4911 - 4968	4936 - Chert, 4987-	4230 - 4310	4716 - SG at 4729		3050 - 3249	2831-	3535 -		
ORISKANY	absent	4992 - 5021	4310 - 4324	4780 - 4787		3249 - 3269	3040 - SW at 3060	3706 - SW at 3710		
HELDERBERG	4968-	5021 - SG & SW at 5022	4324 -	4787-		3269 - 3310				
SALINA		1st salt 5370 - 5385				3408 - 4220				
GUELPH - LOCKPORT						4220 - 4515± SO, 4294-4345				
GRIMSBY		6424-				4665± - 4752				
WHIRLPOOL						4846 - 4866				
QUEENSTON		6590 -				4866 - 5650				
TOTAL DEPTH	5000	6940	4401	4789		8210	3060	3710		
DEEPEST FORMATION REACHED	Helderberg	Queenston	Bass Island	Helderberg		Eau Claire	Oriskany	Oriskany		
RESULT	Dry Abandoned	5 bailers SW in 2 days at 5001 Abandoned	2½ bailers SW in 12 hrs. Abandoned	Hole full of salt water Abandoned		Reedsville, 5720- Utica, 6550- Trenton, 6749- Trempealeau, 7528 SG 7792-7812 SG & SW 8047-90 Eau Claire, 8150-	Dry Abandoned	Dry Abandoned		

TABLE 15
SHEET 63

	NORTHUMBERLAND COUNTY					PIKE COUNTY				
QUADRANGLE	Shamokin					Ariel	Milford			
QUADRANGLE NUMBER	2					1	1			
NAME OF WELL	Geo. C. Krick 1					Jennie Haag 1	Walter Hess 1			
OPERATOR	Angas Corp.					Transcontinental Production Co.	Transcontinental Production Co			
TOWNSHIP	Ralpho					Greene	Shohola			
LATITUDE	9400 ft. N. 40°55'					11,100 ft. N. 41°15'	11,250 ft. N. 41°25'			
LONGITUDE	900 ft. E. 76°35'					3200 ft. E. 75°20'	2000 ft. W. 74°55'			
DATE COMPLETED	1 - 13 - 55					7 - 22 - 59	3 - 9 - 58			
ELEVATION	728					1575	704			
TULLY						5680 - 5715	Hamilton, 4050 -			
ONONDAGA	836 -						6425 - 6650			
ORISKANY RIDGELEY / SHRIVER	1005 - 1070						7312 - 7320			
HELDERBERG	1070 - 1180									
KEYSER	1180 -									
TOTAL DEPTH	1384					5990	7563			
DEEPEST FORMATION REACHED	Keyser					Hamilton	Helderberg			
RESULT	Dry Abandoned					Dry Abandoned	Dry Abandoned			

TABLE 15
SHEET 64

POTTER COUNTY

QUADRANGLE	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines
QUADRANGLE NUMBER	69	70	71	72	73	74	75	76	77	78
NAME OF WELL	William Nye 1	Flewellyn 1	A F Woodward 1	Ocea O. Britton 1	Chas K Erway 1	Arthur Seeley 1	M Courtwright 1	A Schofield 3	Wesley E. Cary 1	Leland Schofield 2
OPERATOR	NYSNG Corp. (HW-43)	NYSNG Corp (HW-41)	NYSNG Corp (HW-33)	NYSNG Corp (HW-39)	NYSNG Corp (HW-38)	NYSNG Corp (HW-40)	NYSNG Corp (HW 29)	NYSNG Corp (HW-28)	NYSNG Corp (HW-37)	NYSNG Corp (HW-30)
TOWNSHIP	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison
LATITUDE	2700 ft. S 42°00'	3800 ft. S. 42°00'	4500 ft. S. 42°00'	5900 ft. S. 42°00'	5700 ft. S. 42°00'	6300 ft. S. 42°00'	5800 ft S 42°00'	7000 ft. S. 42°00'	7700 ft. S 42°00'	11,700 ft S 42°00'
LONGITUDE	6300 ft W 77°40'	5280 ft W. 77°40'	8000 ft W 77°40'	2000 ft W 77°40'	2000 ft E 77°40'	4300 ft E 77°40'	9500 ft W 77°40'	4900 ft W 77°40'	2600 ft E 77°40'	4700 ft W 77°40'
DATE COMPLETED	2 - 29 - 56	11 - 15 - 55	6 - 30 - 55	10 - 12 - 55	8 - 26 - 55	10 - 4 - 55	5 - 13 - 55	2 - 11 - 55	9 - 14 - 55	6 - 21 - 55
ELEVATION	2245	2199	2117	2088	2243	2100	2225	2033	1921	2120
TULLY	4524 - 4585	4397 -	4358 - 4412	4255 - 4560	4398 -	4225 -	4449 -	4220 -	4019 -	4263 -
ONONDAGA	5187 -	5094 -	5020 -	4917 -	5072 -	4893 -	5100 -	4869 -	4719 -	4923 -
ORISKANY	5219 - 5250	5122 -	5049 -	4947 -	5110 -	4922 -	5129 -	4895 - Gas at 4900	4749 -	4959 -
HELDERBERG	5250 -									
TOTAL DEPTH	5260	5149	5074	4970	5133	4947	5152	4920	4757	4979
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany
RESULT	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage

TABLE 15
SHEET 65

POTTER COUNTY

QUADRANGLE	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines
QUADRANGLE NUMBER	79	80	81	82	83	84	85	86	87	88
NAME OF WELL	Arling R Judd 2	Datus W. Lewis 1	C W. Warriner 1	H. Courtright 2	Fred Plaisted et al 2	Arling R Judd 1	Walter Hurlburt 1	Miller 1	Chase 1	Jas. F. Williams 1
OPERATOR	NYSNG Corp (HW-35)	NYSNG Corp (HW-36)	NYSNG Corp (HW-27)	NYSNG Corp (HW-34)	NYSNG Corp (HW-31)	NYSNG Corp (HW-32)	NYSNG Corp (HW-42)	NYSNG Corp (HW-44)	Hanley and Bird	NYSNG Corp (HW-53)
TOWNSHIP	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Hector	Harrison
LATITUDE	8800 ft. S. 42°00'	10,200 ft. S. 42°00'	10,000 ft. S. 42°00'	11,000 ft. S. 42°00'	11,600 ft. S. 42°00'	11,700 ft. S. 42°00'	13,000 ft. S. 42°00'	15,300 ft. S. 42°00'	2700 ft. S. 41°50'	3600 ft. S. 42°00'
LONGITUDE	9200 ft. W. 77°40'	3000 ft. W. 77°40'	900 ft. E. 77°40'	6900 ft. E. 77°45'	8500 ft. E. 77°45'	9400 ft. W. 77°40'	6800 ft. W. 77°40'	8700 ft. W. 77°40'	6500 ft. E 77°40'	2100 ft. W. 77°40'
DATE COMPLETED	8 - 16 - 55	9 - 12 - 55	3 - 25 - 55	6 - 7 - 55	5 - 20 - 55	6 - 6 - 55	11 - 17 - 55	3 - 6 - 56	5 - 11 - 56	7 - 30 - 56
ELEVATION	2286	2190	1868	2057	2009	2043	2262	1861	1788	2135
TULLY	4447 -	4333 -	4012 -	4324 -	4273 -	4210 - 4256	4430 - 4480	4062 -	4242 -	4341 - 4400
ONONDAGA	5154 -	4992 -	4676 -	4975 -	4920 -	4864 -	5101 -	4837 -	5022 -	5010 -
ORISKANY	5178 - Gas at 5188	5024 -	4707 - Gas at 4712-22	5011 -	4955 -	4895 -	5131 -	4872 -	5030 - 5036	5044 - Gas, 5049-61
HELDERBERG									5036 -	
TOTAL DEPTH	5203	5050	4730	5035	4976	4918	5157	4879	5102	5070
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany
RESULT	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Drilled for Gas storage 2400 ft. SW Abandoned	Dry Abandoned	Gas Storage

TABLE 15
SHEET 66

POTTER COUNTY

QUADRANGLE	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines	Gaines
QUADRANGLE NUMBER	89	90	91	92	93	94	95	96	97	98
NAME OF WELL	Benj E. Truax 1	Ocea O. Britton 2	A. Converse 2	Datus W. Lewis 2	Datus W. Lewis 3	Flewellyn 2	H McCutcheon 1	Fred Plaisted 1	Fred Plaisted 2	L Schofield 3
OPERATOR	NYSNG Corp. (HW-57)	NYSNG Corp (HW-51)	NYSNG Corp (HW-50)	NYSNG Corp (HW-46)	NYSNG Corp (HW-47)	NYSNG Corp (HW-49)	NYSNG Corp (HW-56)	NYSNG Corp (HW-45)	NYSNG Corp (HW-55)	NYSNG Corp (HW-52)
TOWNSHIP	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison	Harrison
LATITUDE	1200 ft. S. 42°00'	5280 ft. S. 42°00'	14,500 ft. S. 42°00'	11,000 ft. S. 42°00'	13,400 ft. S. 42°00'	5200 ft. S. 42°00'	3600 ft. S. 42°00'	13,100 ft. S 42°00'	7900 ft. S. 42°00'	9700 ft S 42°00'
LONGITUDE	12,500 ft W 77°35'	300 ft E 77°40'	11,500 ft W 77°40'	2100 ft W 77°40'	2700 ft W 77°40'	1700 ft W 77°40'	2400 ft E 77°40'	8800 ft W 77°40'	10,900 ft W 77°40'	5000 ft W 77°40'
DATE COMPLETED	11 - 26 - 56	6 - 1 - 56	6 - 8 - 56	3 - 6 - 56	4 - 27 - 56	4 - 27 - 56	10 - 25 - 56	1 - 30 - 56	9 - 25 - 56	7 - 2 - 56
ELEVATION	1893	2073	1942	2024	2195	2056	2121	1941	2230	2129
TULLY	4168 - 4220	4240 -	4128 -	4174 -	4444 -	4242 -	4291 -	4088 -	4456 -	4290 -
ONONDAGA	5037 -	4903 -	4774 -	4834 -	5899 -	4903 -	4958 -	4749 -	5111 -	4954 -
ORISKANY	5094 - 5125	4937 -	4810 -	4860 - Gas at 4874	5975 -	4930 -	4990 -	4778 -	5141 - Gas at 5146	4986 -
HELDERBERG	5125 -									
TOTAL DEPTH	5126	4962	4836	4885	5992	4955	5015	4803	5170	5102
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Helderberg
RESULT	Drilled for gas storage 10 gals SW per hr. Abandoned	Gas Storage	Gas Storage	Gas Storage	Drilled for gas storage Abandoned	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage

TABLE 15
SHEET 67

POTTER COUNTY

QUADRANGLE	Gaines	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton
QUADRANGLE NUMBER	102	18	19	20	21	22	23	24	25	26
NAME OF WELL	Benj. Truax 2	Ralph Groves 1	Pa. Tract 16 8	Pa. Tract 58 1	Pa Tract 45 2	Pa Tract 58 2	Pa Tract 45 3	Pa. Tract 67 1	Pa Tract 68 1	Pa Tract 71 1
OPERATOR	NYSNG Corp (HW-58)	NYSNG Corp (N-450)	NYSNG Corp (N-456)	NYSNG Corp (N-467)	NYSNG Corp (N-466)	NYSNG Corp (N-478)	NYSNG Corp	NYSNG Corp (N-525)	NYSNG Corp (N-526)	NYSNG Corp (N-574)
TOWNSHIP	Harrison	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson
LATITUDE	4000 ft. S. 42°00'	300 ft. N. 41°30'	1500 ft. N. 41°30'	5280 ft N. 41°30'	2700 ft. N. 41°30'	1400 ft. N. 41°30'	4600 ft. N. 41°30'	4900 ft. N. 41°30'	9400 ft. N. 41°30'	10,000 ft. N. 41°30'
LONGITUDE	8100 ft. E. 77°40'	9400 ft E 77°45'	11,300 ft E 77°45'	5500 ft. W 77°40'	7500 ft. W. 77°40'	4300 ft. W. 77°40'	7500 ft. W. 77°40'	200 ft. E. 77°40'	1500 ft. E. 77°40'	5400 ft E 77°40'
DATE COMPLETED	1-25-57	5-6-55	7-28-55	12-5-55	2-8-56	10-15-56	8-7-56	3-12-57	3-4-57	8-26-57
ELEVATION	1821	1872	1875	2042	1795	1717	1846	1891	1822	1762
TULLY	4010 - 4052	5863 - 5956	5830 - 5935	5951 - 6039	5637 - 5746	5668 - 5757	5740 -	5835 - 5920	5693 - 5770	5630 - 5710
ONONDAGA	4699 -	6689 -	6722 -	6837 -	6500 -	6544 -	6677 -	6672 -	6545 -	6484 -
ORISKANY	4735 - 4768	6718 -	6751 -	6859 -	6520 - Gas at 6525	6566 - 6616 Gas, 6570-71 Shriver, 6616-	6697 -	6693 - Gas at 6697	6561 - 6622 Gas at 6564	6504 -
HELDERBERG	4768 -								6622 -	
TOTAL DEPTH	4775	6721	6754	6860	6528	6619	6736	6713	6625	6539
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany
RESULT	Drilled for gas storage 915 Mcf gas after shot 1 gal SW 2 hrs. Abandoned	F.O.F. 86,000 Mcf gas RP 4040 psi 24 hrs.	I.O.F. 62,000 Mcf gas RP 3490 psi 10 days	I.O.F. 85,000 Mcf gas RP 2690 psi 10 days	I.O.F. 87,000 Mcf gas RP 2000 psi 10 days	146 Mcf gas AF RP 3880 psi 6 days 1 gal SW per hr.	I.O.F. 5497 Mcf gas RP 1160 psi 37 hrs.	I.O.F. 696 Mcf gas RP 4056 psi 25 days	I.O.F. 73 Mcf gas RP 949 psi 21½ days	I.O.F. 4967 Mcf gas RP 2805 psi 47 hrs.

TABLE 15
SHEET 68

POTTER COUNTY

QUADRANGLE	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Galeton	Genesee
QUADRANGLE NUMBER	27	28	29	30	31	32	33	35	36	136
NAME OF WELL	Pa. Tract 68 2	Pa. Tract 71 2	Pa. Tract 72 1	Pa. Tract 82 1	Pa. Tract 81 1	Pa. Tract 71 3	Pa Tract 81 2	Pa. Tract 81 3	Ida M. Olson 1	Ed Bloss 1
OPERATOR	NYSNG Corp (N-592)	NYSNG Corp (N-605)	NYSNG Corp. (N-612)	Phillips Petroleum Co.	Phillips Petroleum Co.	NYSNG Corp (N-705)	Phillips Petroleum Co.	Phillips Petroleum Co.	Godfrey L Cabot, Inc.	Kane et al
TOWNSHIP	Stewardson	Stewardson	Stewardson	Abbott	Stewardson	Stewardson	Stewardson	Stewardson	Stewardson	Sweden
LATITUDE	8700 ft. N. 41°30'	11,500 ft. N 41°30'	14,500 ft. N. 41°30'	4400 ft. S. 41°35'	14,400 ft. N. 41°30'	12,050 ft. S. 41°35'	12,400 ft. N. 41°30'	12,200 ft. N. 41°30'	14,450 ft. S. 41°35'	9700 ft. S. 41°50'
LONGITUDE	4500 ft. E. 77°40'	7200 ft. E. 77°40'	11,300 ft. E. 77°40'	7700 ft. E. 77°40'	6850 ft. W. 77°40'	4200 ft. E. 77°40'	4750 ft. W. 77°40'	8400 ft. W. 77°40'	8900 ft. W. 77°40'	5000 ft. E 77°55'
DATE COMPLETED	11 - 1 - 57	11 - 15 - 57	2 - 7 - 58	2 - 6 - 59	1 - 9 - 59	5 - 26 - 59	7 - 15 - 59	9 - 11 - 59	11 - 9 - 59	5 - 24 - 57
ELEVATION	1863	1889	1977	2113	2166	2032	1972 DF	1905 DF	2076 DF	2384
TULLY	5750 - 5850	5722 - 5804	5809 -	6155 - 6240	5885 -	5545 -	5562 - 5640	5541 - 5620	6055 -	4595 -
ONONDAGA	6627 -	6578 -	6772 -	7034 -	6723 -	6418 -	7315 - 7365	6359 -	6956 -	5196 -
ORISKANY	6644 - 6700	6606 -	6796 - 6837 Gas, 6800-10	Horizon at 7065	6746 - SG, 6744-6774	6434 - 6465	7365 - 7430	6376 - Gas, 6378-81	6975 - 7003	
HELDERBERG	6700? -									
TOTAL DEPTH	6704	6611	6857	7100	6774	6538	7500	6416	7005	5275
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Helderberg?	Helderberg	Oriskany	Helderberg	Helderberg	Helderberg	Helderberg	Helderberg
RESULT	913 Mcf gas AF RP 2655 psi	I.O.F. (est) 40,000 Mcf gas RP 2231 psi 24 hrs.	696 Mcf gas AF RP 1634 psi 5 days	Dry Abandoned	983 Mcf gas AF RP 4427 psi 24 hrs. Discovery Well Ole Bull Pool	Dry Abandoned	Dry Abandoned	316 Mcf gas AF RP 3100 psi 72 hrs	Dry Abandoned	Dry Abandoned

TABLE 15
SHEET 69

POTTER COUNTY

QUADRANGLE	Genesee	Genesee	Genesee	Genesee	Renovo East	Renovo East	Renovo East	Renovo East		
QUADRANGLE NUMBER	137	138	139	140	7	8	13	14		
NAME OF WELL	Lyle Tarbox 1	NYSNG Corp 1	C Young 1	Marvin Easton 1	Pa Tract 16 7	Pa Tract 45 1	Pa Tract 16 9	Pa Tract 45 5		
OPERATOR	Trans Eastern Petroleum Co.	United Nat Gas Co., No. 5604	United Nat Gas Co, No. 5602	United Nat Gas Co, No. 5603	NYS NG Corp. (N-398)	NYS NG Corp. (N-451)	NYS NG Corp (N-479)	NYS NG Corp (N-554)		
TOWNSHIP	Ulysses	Allegany	Bingham	Genesee	Stewardson	Stewardson	Stewardson	Stewardson		
LATITUDE	13,200 ft. S. 41°55'	3000 ft. S. 41°55'	16,200 ft. S. 42°00'	5200 ft. N. 41°55'	6700 ft. S 41°30'	1500 ft. S. 41°30'	3500 ft. S. 41°30'	2350 ft. S 41°30'		
LONGITUDE	12,800 ft. W. 77°45'	4300 ft. W. 77°55'	8200 ft. W. 77°45'	5900 ft. W. 77°50'	4000 ft. E. 77°45'	9100 ft. E. 77°45'	7200 ft. E. 77°45'	7400 ft. W 77°40'		
DATE COMPLETED	7 - 26 - 57	7 - 8 - 58	8 - 27 - 58	10 - 6 - 58	1 - 25 - 55	6 - 21 - 55	4 - 27 - 56	7 - 19 - 57		
ELEVATION	2160	2214	1982	1892 DF	1587	1813	1568	1851		
TULLY	4491 - 4538	4684 -	4440 -	4325 - 4377	5616 - 5710	5720 -	5548 - 5640	5847 -		
ONONDAGA	5132 -	5308 -	5074 -	4947 -	6465 -	6564 -	6410 -	6703 -		
ORISKANY	5158 - SG at 5162	5318 -		4974	6489 - Gas, 6493-96	6591 -	6432 - 6482 Gas at 6482	6722 -		
HELDERBERG										
TOTAL DEPTH	5192	5321	5088	4976	6501	6596	6485	6747		
DEEPEST FORMATION REACHED	Helderberg	Oriskany	Onondaga	Oriskany	Oriskany	Oriskany	Helderberg	Oriskany		
RESULT	20 Mcf gas after shot Abandoned	443 Mcf gas natural RP 480 psi 24 hrs.	Abandoned	325 Mcf gas natural RP 424 psi 68 hrs.	I.O.F. 35,000 Mcf gas RP 4240 psi 39 hrs. Discovery Well Greenlick Pool	I.O.F. 124,000 Mcf gas RP 3585 psi 48 hrs.	1594 Mcf gas after shot RP 1600 psi 15 hrs.	167 Mcf gas A.F. RP 540 psi 72 hrs.		

TABLE 15
SHEET 70

SNYDER COUNTY

QUADRANGLE	Mifflinburg	Mifflinburg	Mifflinburg							
QUADRANGLE NUMBER	2	3	4							
NAME OF WELL	Carl Herbster 1	Albert 1	Moyer 1							
OPERATOR	Middle Creek Prospecting Co	Middle Creek Prospecting Co	Middle Creek Prospecting Co							
TOWNSHIP	Adams	Adams	Franklin							
LATITUDE	800 ft. N. 40°50'	9000 ft. S. 40°50'	12,800 ft. S 40°50'							
LONGITUDE	8500 ft. E. 77°10'	2400 ft. E. 77°10'	7000 ft. W. 77°05'							
DATE COMPLETED	6 - 29 - 56	6 - 22 - 56	4 - 19 - 57							
ELEVATION	831	652	703							
TULLY		Hamilton, 0 - 1358	1540 - 1570							
ONONDAGA SELINSGROVE		1358 - 1400	3910 - 3990							
ONONDAGA NEEDMORE		1400 - 1576	3990 -							
ORISKANY		1576 -	absent							
HELDERBERG - KEYSER		1675 - 2143	4520 - 4700							
TONOLOWAY	- 1178	2143 - 3358	4700 - salt water							
WILLS CREEK	1178 - 2683	3358 - 4064								
BLOOMSBURG	2683 -	4064 - 4668								
MCKENZIE		4668 - 4859								
ROCHESTER		4859 - 4912								
KEEFER		4912 - 4965								
ROSE HILL		4965 -								
TOTAL DEPTH	2960	5965	5780							
DEEPEST FORMATION REACHED	Bloomsburg	Rose Hill	Tonoloway							
RESULT	Dry Abandoned	Dry Abandoned	Dry Abandoned							

TABLE 15
SHEET 71

SOMERSET COUNTY

QUADRANGLE	Donegal	Donegal	Grantsville	Meyersdale	Somerset	Somerset	Somerset	Somerset	Somerset	Somerset
QUADRANGLE NUMBER	18	23	1	1	5	6	7	8	9	10
NAME OF WELL	Pa Tract 75 1	Pa Tract 75 3	Milton Bender 1	Pa Tract 64 1	C E Williams 1	C E Williams 2	Royal Rhoads 1	C E Williams 3	M H Critchfield 1	L W Walker 1
OPERATOR	The Peoples Nat Gas Co	The Peoples Nat Gas Co	M L & H Co.	N Y S N G Corp (N-655)	Peoples Nat Gas and Snee & Eberly	Peoples Nat Gas and Snee & Eberly	Felmont Oil Corp and Peoples Nat. Gas	Peoples Nat Gas and Snee & Eberly	Felmont Oil Corp	Peoples Nat Gas and Snee & Eberly
TOWNSHIP	Jefferson	Jefferson	Elklick	Elklick	Jenner	Jenner	Jenner	Jenner	Jenner	Jenner
LATITUDE	15,600 ft. S. 40° 05'	12,700 ft. S. 40° 05'	5250 ft. S 39° 45'	7650 ft. N. 39° 45'	10,300 ft. S. 40° 15'	13,600 ft. S. 40° 15'	15,700 ft. S 40° 05'	7200 ft. S. 40° 15'	9300 ft. N. 40° 05'	11,300 ft. N. 40° 10'
LONGITUDE	4600 ft. W. 79° 15'	1200 ft. W. 79° 15'	6200 ft. W. 79° 10'	700 ft. W. 79° 10'	300 ft. E. 79° 05'	1850 ft. W. 79° 05'	12,650 ft. W. 79° 00'	3200 ft. E. 79° 05	7100 ft. E. 79° 05'	4450 ft. W. 79° 05'
DATE COMPLETED	6 - 21 - 58	5 - 19 - 59	12 - 27 - 58	12 - 10 - 58	2 - 14 - 58	7 - 31 - 58	11 - 2 - 58	12 - 5 - 58	2 - 16 - 59	4 - 23 - 59
ELEVATION	2461	2916	2797	2970	2572	2635	2060	2356	2122 DF	2554
TULLY		Hamilton, 7717 -	Hamilton, 7475 -	7865 - Hamilton, 7885 -	Hamilton, 7248 -	Hamilton, 7198 -	Hamilton, 7383 -	Hamilton, 7263 -	Hamilton 7482 -	Hamilton, 7210 -
ONONDAGA LIMESTONE		8440 -	8304 -	8937 -	8026 -	7945 -	8233 -		8370 -	7945 -
ONONDAGA CHERT		8460 - Gas, 8472-74	8331 - 8418	8966 -	8048 -	7975 -	8257 -	8100 -	8389 -	7965 - 242 Mcf gas
ORISKANY			Ridgeley, 8438 - 8550 Shriver 8550 -	9067 -		8103 - 8210 Gas at 8108	8413 -		8517 -	8098 - 494 Mcf gas
HELDERBERG				9192 -						
TOTAL DEPTH	7936	8474	8571	9198	8152	8260	8450	8196	8540	8130
DEEPEST FORMATION REACHED	Genesee	Onondaga	Helderberg	Helderberg	Onondaga	Helderberg	Oriskany	Onondaga	Oriskany	Oriskany
RESULT	Dry Abandoned	10,933 Mcf gas natural RP 3400 psi 10 days Discovery Well Kooser Pool	1500 Mcf gas AF Drowned by salt water Abandoned	Dry Abandoned	16,025 Mcf gas AF RP 3660 psi 72 hrs Discovery Well Williams Pool	9521 Mcf gas AF RP 3590 psi 72 hrs.	3500 Mcf gas AF RP 3602 psi 116 hrs. Discovery Well Boswell Field	1639 Mcf gas AF RP 3200 psi 24 hrs.	5030 Mcf gas AF RP 3890 psi 7 days	5659 Mcf gas AF RP 3050 psi 10 days

TABLE 15
SHEET 72

SOMERSET COUNTY

QUADRANGLE	Somerset	Somerset	Somerset	Somerset						
QUADRANGLE NUMBER	11	12	13	14						
NAME OF WELL	Ralph Warnick 1	G A McConaughy 1	Robert Hamer 1	Ellis Friedline 1						
OPERATOR	Felmont Oil Corp and Peoples Nat Gas	Felmont Oil Corp and Peoples Nat Gas	Felmont Oil Corp and Peoples Nat Gas	Felmont Oil Corp and Peoples Nat Gas						
TOWNSHIP	Quemahoning	Jenner	Lincoln	Jenner						
LATITUDE	3700 ft N 40°05'	11,400 ft. S. 40°10'	4600 ft. N. 40°05'	7750 ft S 40°10'						
LONGITUDE	7400 ft. W. 79°00'	9800 ft W 79°00'	4900 ft. E. 79°05'	6700 ft. W. 79°00'						
DATE COMPLETED	4 - 8 - 59	5 - 19 - 59	7 - 27 - 59	12 - 21 - 59						
ELEVATION	1938 DF	2102 RT	1934 RT	2037 RT						
TULLY	Hamilton, 7810 -	Hamilton, 7575 -	Hamilton, 7335 -	Hamilton, 7620 -						
ONONDAGA LIMESTONE	8665 -	8441 -	8140 -	8426 -						
ONONDAGA CHERT	8690 -	8458 -	8168 -	8443 -						
ORISKANY	8797 - 40 Mcf gas	8617 -	8275 -	8580 - 350 Mcf gas 8584 - 8586						
HELDERBERG			8372 -							
TOTAL DEPTH	8808	8642	8404	8650						
DEEPEST FORMATION REACHED	Oriskany	Oriskany	Helderberg?	Oriskany						
RESULT	189 Mcf gas AF RP 2839 psi 7 days Too much SW Abandoned	4792 Mcf gas AF RP 3469 psi 68 hrs.	3850 Mcf gas AF RP 3371 psi 18 hrs.	2000 Mcf gas AF RP 3050 psi 17 hrs.						

DF - derrick floor
RT - rotary table

TABLE 15
SHEET 73

	SULLIVAN COUNTY				SUSQUEHANNA COUNTY					
QUADRANGLE	Powell				Le Raysville	Le Raysville	Le Raysville			
QUADRANGLE NUMBER	2				2	3	4			
NAME OF WELL	Bernard Bruschart 1				Kelley - Hendrickson 1	Kelly - Hendrickson 1-A	E J Moran 1			
OPERATOR	Blue Rock Drilling Co.				Gas Well Supply Co.	Gas Well Supply Co.	Kewanee Oil Co			
TOWNSHIP	Forks				Choconut	Choconut	Friendsville Borough			
LATITUDE	12,600 ft. N. 41°30'				650 ft. N. 41°55'	900 ft. N. 41°55'	2200 ft. N 41°55'			
LONGITUDE	9300 ft. E. 76°35'				8300 ft. W. 76°00'	8500 ft. W. 76°00'	7500 ft. E. 76°05'			
DATE COMPLETED	4 - 10 - 55				6 - 7 - 57	11 - 12 - 57	12 - 12 - 59			
ELEVATION	1743				1625	1655	1447			
TULLY	5180 - 5340				3444 -	3473 -	3266 - 3381			
ONONDAGA	6870 -				5511 -	5541 -	5315 -			
ORISKANY	7094 -					5761 - 5776	5528 - 5542			
HELDERBERG						5776 -	5542 -			
TOTAL DEPTH	7192				5511	5874	5576			
DEEPEST FORMATION REACHED	Helderberg?				Onondaga	Helderberg?	Helderberg			
RESULT	Dry Abandoned				Several small shows of gas in Hamilton interval Abandoned	Small shows of gas in Hamilton Gas pocket in Onondaga shale Abandoned	Show of gas Abandoned			

TABLE 15
SHEET 74

TIOGA COUNTY

QUADRANGLE	Antrim	Antrim	Gaines	Gaines	Gaines	Gaines	Gaines	Galeton	Galeton	Tioga
QUADRANGLE NUMBER	10	11	99	100	101	103	104	17	34	91
NAME OF WELL	Eda B Head or (Brookmiller) 1	Earl West 1	F.S. Burdick 1	M.J. Roberts 1	V Vanderhoff 3	B.A. Griffin 1	J.L. Trimmer 2	Hubert 1	Van Tine 1	Chas Thomas 1
OPERATOR	James Drilling Co	Benedum Trees Co	NYSNG Corp (N-500S)	NYSNG Corp (N-501S)	NYSNG Corp (N-475S)	NYSNG Corp (N518S)	NYSNG Corp (N-517S)	James Drilling Co	Ward Denman	NYSNG Corp (N577)
TOWNSHIP	Gaines	Delmar	Clymer	Clymer	Clymer	Clymer	Clymer	Gaines	Gaines	Farmington
LATITUDE	12,500 ft. S. 41°45'	1850 ft. S. 41°40'	13,300 ft. S. 41°55'	9300 ft. N. 41°50'	6400 ft. N. 41°50'	15,500 ft. S. 41°55'	10,400 ft. N. 41°50'	9600 ft. S. 41°45'	11,100 ft. N. 41°40'	8300 ft. N 41°55'
LONGITUDE	1600 ft. E. 77°30'	3900 ft. E. 77°25'	3000 ft. W 77°30'	13,200 ft W. 77°30'	3200 ft. E. 77°35'	6600 ft. W. 77°30'	11,000 ft. W. 77°30'	10,300 ft. W. 79°30'	5200 ft. W. 79°35'	6700 ft. E 77°15'
DATE COMPLETED	2-26-55	7-27-56	10-4-56	10-26-56	5-2-56	7-16-57	2-21-57	3-3-55	10-2-59	4-8-32
ELEVATION	1911	1770	1919	1889	1980	1647	1699	1517	1677 DF	1834
TULLY	5337-	4681-	3860-	3697-	3949-	3541-	3474 - 3530	4827-	4567-	3157 - 3222
ONONDAGA	6229-	5610 - 5633	4627-	4450-	4775-	4309-	4246 - 4256	5688-	5428-	4079 - 4110
ORISKANY	6251 - 6281	5633 - 5653	4640-	4467-	4784 - 4806	4326-	4256-	5706- 3 Mcf gas & SW	5450 - 5461	4110 - 4131
HELDERBERG	6281-	5653-			4806-				5461-	
TOTAL DEPTH	6286	5760	4656	4476	4810	4353	4274	5747	5477	4131
DEEPEST FORMATION REACHED	Helderberg	Helderberg	Oriskany	Oriskany	Helderberg	Oriskany	Oriskany	Helderberg	Helderberg	Oriskany
RESULT	20 gals SW in 30 hrs Abandoned	Dry Abandoned	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Gas Storage	Show of gas salt water Abandoned	Dry Abandoned	Drilled deeper 1-31-39 25,500 Mcf gas R P 1585 psi Old well not previously reported

TABLE 15
SHEET 75

TIOGA COUNTY

QUADRANGLE	Troy			
QUADRANGLE NUMBER	4			
NAME OF WELL	Delton Allen 1			
OPERATOR	Hanley and Bird			
TOWNSHIP	Jackson			
LATITUDE	1725 ft. S 42°00'			
LONGITUDE	12,900 ft. W. 76°55'			
DATE COMPLETED	10 - 2 - 58			
ELEVATION	1480			
TULLY	3172 - 3253			
ONONDAGA	4255 - 4290			
ORISKANY	4290 - 4320			
HELDERBERG	4320 -			
TOTAL DEPTH	4330			
DEEPEST FORMATION REACHED	Helderberg			
RESULT	Dry Abandoned			

UNION COUNTY

QUADRANGLE	Sunbury			
QUADRANGLE NUMBER	1			
NAME OF WELL	Solomon 1			
OPERATOR	Godfrey L. Cabot, Inc			
TOWNSHIP	Buffalo			
LATITUDE	6500 ft S 41°55'			
LONGITUDE	7700 ft E 77°00'			
DATE COMPLETED	6 - 3 - 55			
ELEVATION	1028			
TUSCARORA	0 - 492			
JUNIATA	492 - 2288 SW at 970 SO, 1920, 2000, 2217			
OSWEGO	2288 - 3240 SO at 2890			
MARTINSBURG	3240 - 5443 SG, 4312-22, 5301 SW at 4023, 4940			
TRENTON	5443 -			
BLACK RIVER	6232 - SG, 6344, 6505, 6846			
CHAZY	6870 -			
BEEKMANTOWN	7350 -			
TOTAL DEPTH	8002			
DEEPEST FORMATION REACHED	Beekmantown			
RESULT	Show of oil Show of gas Abandoned			

TABLE 15
SHEET 76

WARREN COUNTY

QUADRANGLE	Tidioute	Tidioute	Warren	Warren	Youngsville					
QUADRANGLE NUMBER	2	3	8	9	4					
NAME OF WELL	J. B. Proper 1	Shaw 1	Starbrick 1	Fenner Lindblom 1	Mrs Carl Keester 1					
OPERATOR	S A Breene	Biery and Johnson	?	T.D Mallory et al	Pa. Gas Co. No. 1529					
TOWNSHIP	Triumph	Limestone	Conewango	Glade	Brokenstraw					
LATITUDE	8400 ft. S. 41°40'	4800 ft. S. 41°40'	1800 ft. N. 41°50	11,400 ft. S. 41°55'	8000 ft. N 41°50'					
LONGITUDE	1800 ft W. 79°25'	9700 ft. W. 79°20'	11,100 ft. W 79°10'	5000 ft. W. 79°00'	5350 ft. W. 79°15'					
DATE COMPLETED	11 - 19 - 55	11 - 1 - 57	before 1910	6 - 10 - 59	7 - 12 - 57					
ELEVATION	1627 DF	1708	1180	2029 DF	1262					
TULLY	4075 - 4140	4155 - 4208	3398 ± -	4124 - 4164	3170 -					
ONONDAGA	4375 - 4465 SG, SW at 4431	4448 - Gas pocket at 4452		4412 Cherl, 4440 -	3478 - 3596					
ORISKANY	4465 - 4480	4528 - 4535		4483 - 4491	3596 - 3599					
HELDERBERG BASS ISLAND	4480 4508 4508 - 4595	4535 - 4567-		4491 -	3599 - 3664± 3664± -					
SALINA	4595 - 5310 1st salt 4845 -	4652 - 5372 1st salt, 4890 -			3664± - 1st salt, 3978 -					
GUELPH - LOCKPORT	5310 - 5613 1 bbl SW per hr	5372 - 5676 SO, SW at 5574			4315± - Black water at 4465 - 4470					
GRIMSBY	5780 - 5920	5850 - SG at 5930			4709 - 4833 SG, 4817, 4829					
WHIRLPOOL	5950 - 5960	6012 - 6018			4882 - 4886					
QUEENSTON	5960 -	6018 -			4886 -					
TOTAL DEPTH	6004	9410	3670	4571	4898					
DEEPEST FORMATION REACHED	Queenston	Gatesburg	Hamilton	Bass Island	Queenston					
RESULT	Show of gas Abandoned	Trenton, 8300- Gatesburg, 8985- 75 Mcf at 9076-86 20 Mcf at 9220 SW at 9205, 9404	Dry Not previously published	Dry Abandoned	Show of gas Abandoned					

TABLE 15
SHEET 77

WAYNE COUNTY

QUADRANGLE	Damascus	Honesdale	Long Eddy	Starrucca						
QUADRANGLE NUMBER	1	1	1	1						
NAME OF WELL	Clarence Price 1	Grimm 1	H. Heitmann 1	Simon Haas 1						
OPERATOR	Transcontinental Production Co	Transcontinental Production Co	Transcontinental Production Co	Penn-York Drilling Co						
TOWNSHIP	Damascus	Dyberry	Manchester	Scott						
LATITUDE	4800 ft. N. 41°40'	11,500 ft. S. 41°40'	7750 ft. S. 41°50'	3500 ft. S 42°00'						
LONGITUDE	2400 ft. E. 75°05'	7400 ft. W. 75°15'	800 ft. E. 75°10'	2000 ft. W. 75°20'						
DATE COMPLETED	2-12-58	3-30-59	9-11-59	8-11-56						
ELEVATION	897	1363	1077	965						
TULLY	Hamilton, 4940-	4882-	4645 - 4670	3167-						
ONONDAGA	7490 -									
ORISKANY	Horizon at 8110									
HELDERBERG										
TOTAL DEPTH	8740	4963	4995	5903						
DEEPEST FORMATION REACHED	Bossardville	Hamilton	Hamilton	Onondaga						
RESULT	Dry Abandoned	Dry Abandoned	Dry Abandoned	Show of gas at 5350 Reactivated during 1958 and 1959 Abandoned						

TABLE 15
SHEET 78

WESTMORELAND COUNTY

QUADRANGLE	Donegal	Donegal	Donegal	Donegal	Donegal	Donegal	Donegal	Donegal	Donegal	Donegal
QUADRANGLE NUMBER	7	8	9	10	11	12	13	14	15	16
NAME OF WELL	Fred Musnug 2	J.G. Mailey 1	Schworer 1	H.E. Leighty 1	B.H. Smithley 1	Benedictine Society 1	M. I. Keck 1	Carl Shultz 1	W.R. Dillon 1	M. I. Keck 2
OPERATOR	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co.	Keta Gas & Oil Co	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co	The Peoples Nat. Gas Co	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co
TOWNSHIP	Unity	Mt. Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant	Mt Pleasant
LATITUDE	7000 ft. S. 40°15'	11,400 ft. N. 40°10'	14,100 ft. S. 41°15'	5900 ft. N. 40°10'	10,000 ft. N. 40°10'	13,500 ft. N. 40°10'	3000 ft. N. 40°10'	8100 ft. N. 40°10'	5400 ft. N. 40°10'	1300 ft. N 40°10'
LONGITUDE	6850 ft W 79°20'	3900 ft E 79°25'	2200 ft E 79°25'	3300 ft E 79°25'	3200 ft E 79°25'	5800 ft E 79°25'	1800 ft W 79°25'	1500 ft. E 79°25'	250 ft E 79°25'	3350 ft W 79°25'
DATE COMPLETED	6 - 2 - 55	9 - 13 - 56	4 - 9 - 57	3 - 8 - 57	3 - 18 - 57	5 - 4 - 57	8 - 30 - 57	9 - 9 - 57	9 - 26 - 57	3 - 18 - 58
ELEVATION	2096	1879	1570	2129	2001	1883	1840	1772	2013	1887
TULLY	7850 - 7940	6636 - 6713	7120 -	7541 -	6740 - 6820	6656 - 6730	6834 - 6925	6590 - 6705	6889 - 6970	6876 -
ONONDAGA LIMESTONE	8548 -	7240 -	7800 -	8425 -	7344 -	7258 -	7455 -	7207 -	7515 -	7521 -
ONONDAGA CHERT	8570 -	7266 -	7837 -	8480 -		7277 -	7475 -	7226 - SG at 7308	7534 - Gas 7568-7600	7545 -
ORISKANY	8740 - Show salt water	7407 - 7450 Gas at 7306, 7320, 7347			7497 -	7420 -		7377 -		7702 -
HELDERBERG		7450 -								
TOTAL DEPTH	8773	7478	7877	8679	7539	7465	7565	7435	7645	7722
DEEPEST FORMATION REACHED	Oriskany	Helderberg	Onondaga	Onondaga	Oriskany	Oriskany	Onondaga	Oriskany	Onondaga	Oriskany
RESULT	Dry Abandoned	11,000 Mcf gas AF RP 4100 psi 2 days Discovery Well St. Boniface Chapel Pool	Salt water rose 5000 ft. Abandoned	Dry Plugged back to 3100 Sand 3079-97 Gas at 3088 170 Mcf AF RP 920 psi 40 hrs.	Gas at 7368 I.A.F. 2564 Mcf RP 3290 psi 48 hrs.	6852 Mcf gas AF RP 3050 psi 10 days	11,365 Mcf gas natural RP 3280 psi 48 hrs.	6154 Mcf gas AF RP 3075 psi 10 days	10,116 Mcf gas AF RP 3200 psi 10 days	585 Mcf gas AF RP 2950 psi 10 days

TABLE 15
SHEET 79

WESTMORELAND COUNTY

QUADRANGLE		Donegal	Donegal	Donegal	Donegal	Donegal	Donegal	Latrobe	Latrobe	Somerset	Somerset
QUADRANGLE NUMBER		17	19	20	21	22	24	8	9	2	3
NAME OF WELL		John H Dent 1	N. A. Myers 1	James S Blair 1	J A Cummings 1	James S. Blair 2	James S. Blair 3	Jos. H Rogers 1	Latrobe Construction Co 1	John Beck 2	Pa Game Lands Tract 42, No. 1
OPERATOR		The Peoples Nat. Gas Co.	The Peoples Nat Gas Co.	The Peoples Nat. Gas Co.	Felmont Oil Corp.	The Peoples Nat. Gas Co.	The Peoples Nat. Gas Co.	Felmont Oil Corp.	The Peoples Nat Gas Co.	Snee & Eberly	Felmont Oil Corp.
TOWNSHIP		Mt. Pleasant	Mt. Pleasant	Donegal	Mt. Pleasant	Donegal	Donegal	Unity	Ligonier	Ligonier	Ligonier
LATITUDE		500 ft. S. 40°10'	2450 ft. S. 40°10'	4700 ft. N. 40°05'	3800 ft. S. 40°10'	8550 ft. N. 40°05'	16,700 ft S. 40°10'	9900 ft. N. 40°15'	17,000 ft. S. 40°20'	6300 ft. S. 40°15'	4200 ft S. 40°15'
LONGITUDE		5250 ft. W. 79°25'	6550 ft. W. 79°25'	6700 ft. W. 79°15'	5950 ft. W. 79°25'	5350 ft. W. 79°15'	3100 ft. W. 79°15'	300 ft. W. 79°20'	11,500 ft. W. 79°15'	7100 ft. W. 79°05'	8000 ft. W 79°15'
DATE COMPLETED		5 - 9 - 58	5 - 29 - 58	12 - 5 - 58	9 - 25 - 58	3 - 5 - 59	9 - 18 - 59	5 - 20 - 57	12 - 5 - 58	5 - 16 - 57	11 - 15 - 57
ELEVATION		1808	1999	2685	1905 RT	2186	2438	1733	1905	2845	2612
TULLY		6806 -	6990 - 7080	Hamilton, 6922 -	6903 -	Hamilton, 6530 -	Hamilton, 7035 -	7643 -	7057 -	Hamilton, 6745 -	
ONONDAGA	LIMESTONE	7404 -	7584 -	7574 -	7982 -	7163 -	7665 -		7713 -	7429 -	
	CHERT	7423 -	7603	7594 -	8005 -	7187 -	7681 -		7733 -	7454 -	
ORISKANY				7776 -		7335 -	7829 -				
HELDERBERG											
TOTAL DEPTH		7525	7708	7824	8119	7384	7854	7830	7826	7540	8058
DEEPEST FORMATION REACHED		Onondaga	Onondaga	Oriskany	Onondaga	Oriskany	Oriskany	Hamilton	Onondaga	Onondaga	Hamilton
RESULT		2316 Mcf gas AF RP 3075 psi 48 hrs.	1404 Mcf gas AF RP 3025 psi 24 hrs.	9115 Mcf gas AF RP 3210 psi 24 hrs. Discovery Well Seven Springs Field	17 Mcf gas 8019-8030 1 bbl SW per hr. 8050-8055 8058-8068 Abandoned	9910 Mcf gas AF RP 3240 psi 24 hrs.	2144 Mcf gas AF RP 3185 psi 24 hrs	Dry Abandoned	1087 Mcf gas AF RP 3250 psi 10 days Discovery Well Derry Pool	6700 Mcf gas natural Discovery Well Beck Pool	Faulted No recognized markers Abandoned

TABLE 15
SHEET 80

WESTMORELAND COUNTY

QUADRANGLE		Somerset									
QUADRANGLE NUMBER		4									
NAME OF WELL		Sarah W. Esler 1									
OPERATOR		Snee & Eberly									
TOWNSHIP		Ligonier									
LATITUDE		10,800 ft. S. 40°15'									
LONGITUDE		10,600 ft. W. 79°05'									
DATE COMPLETED		11-15-57									
ELEVATION		2767									
TULLY		7637-									
ONONDAGA	LIMESTONE	7904-									
	CHERT	7929-									
ORISKANY											
HELDERBERG											
TOTAL DEPTH		8009									
DEEPEST FORMATION REACHED		Onondaga									
RESULT		Salt water at 8001 Abandoned									

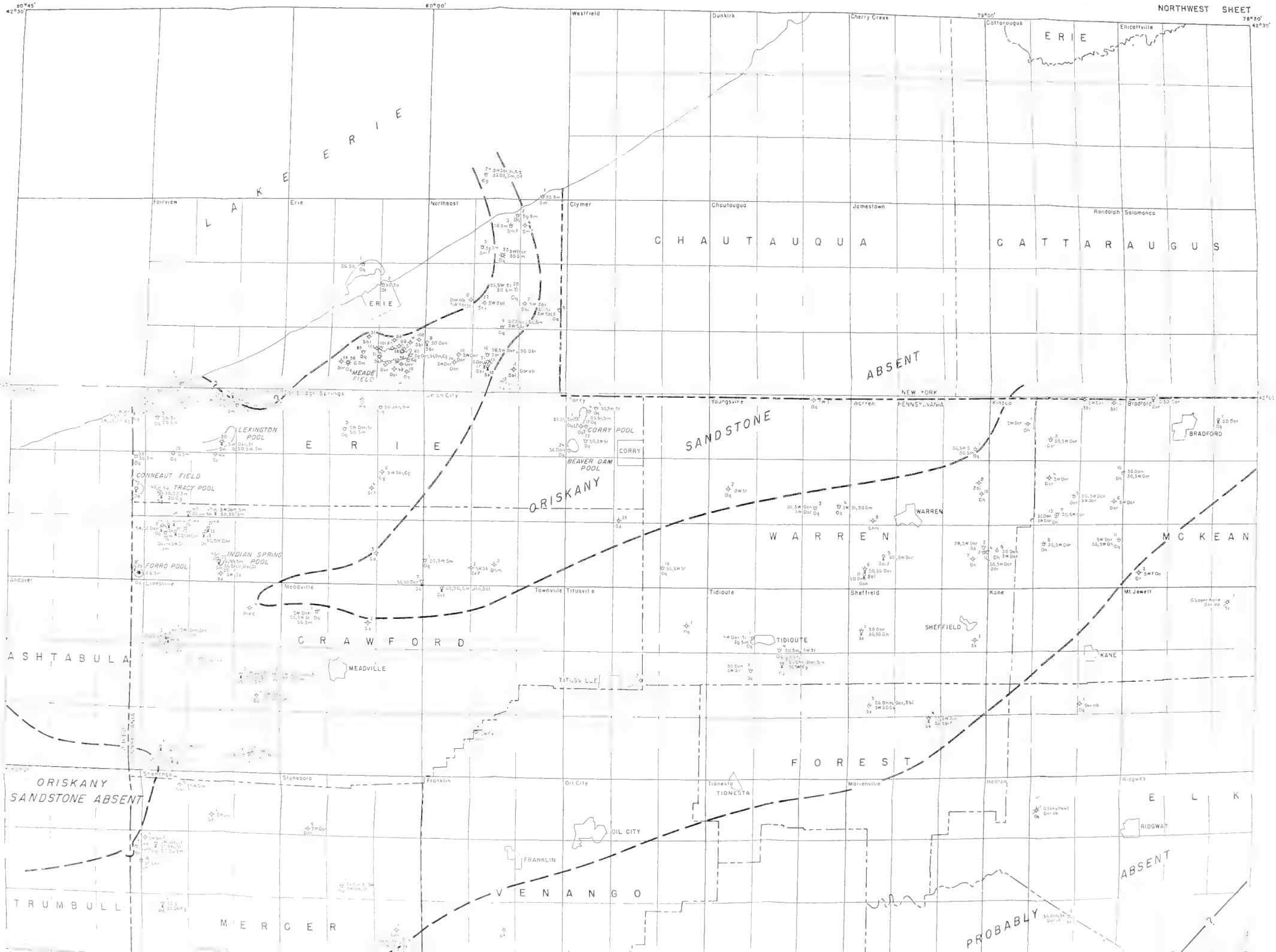
ABBREVIATIONS USED IN TABLES

AF AFTER FRACTURING
AS AFTER SHOT
BF BEFORE FRACTURING
DD DRILLED DEEPER
DF DERRICK FLOOR
PB PLUGGED BACK
RT ROTARY TABLE
TC TOP OF CELLAR

M L & H CO. MANUFACTURERS LIGHT AND HEAT COMPANY

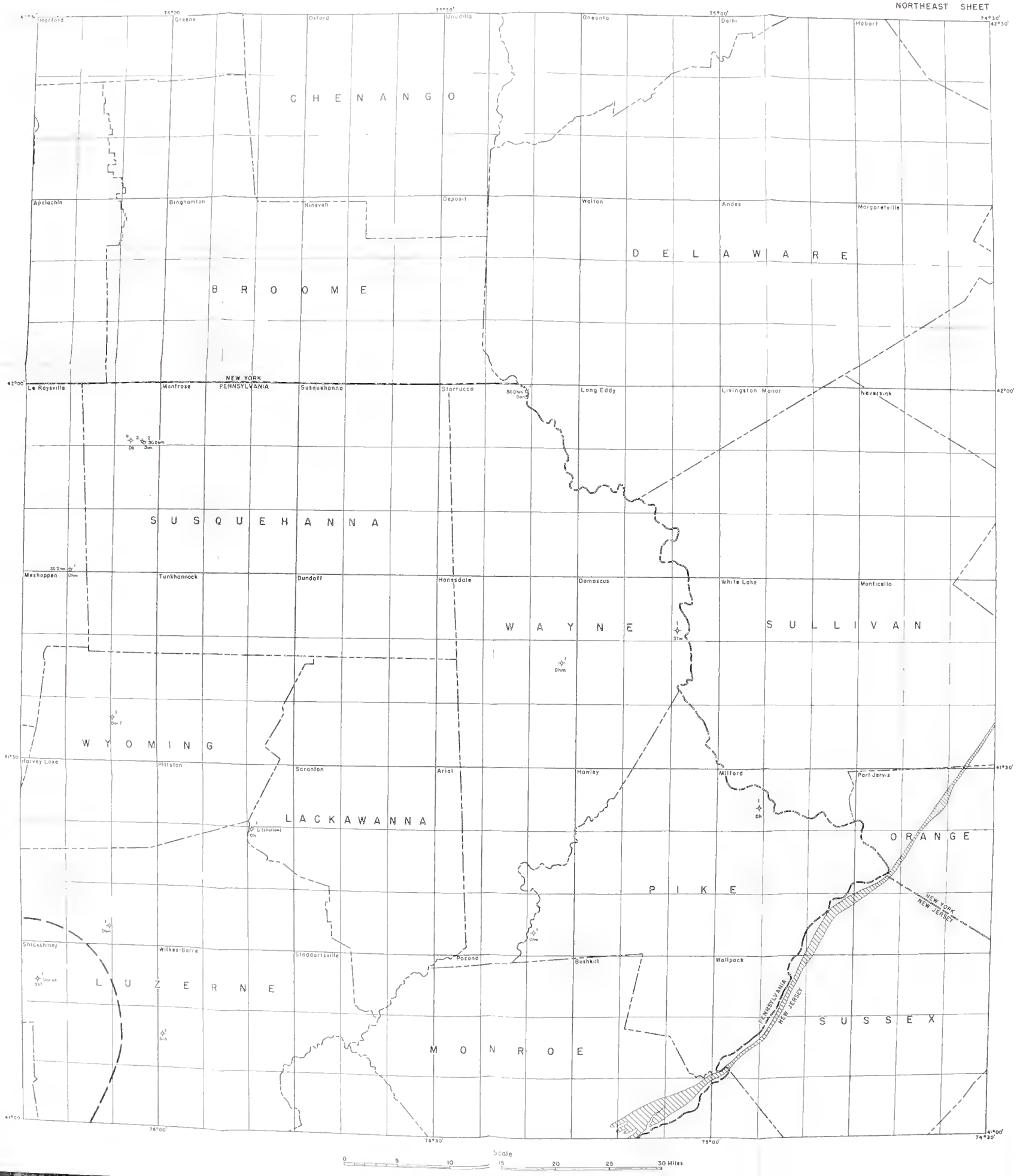
NYSNG CORP. NEW YORK STATE NATURAL GAS CORPORATION

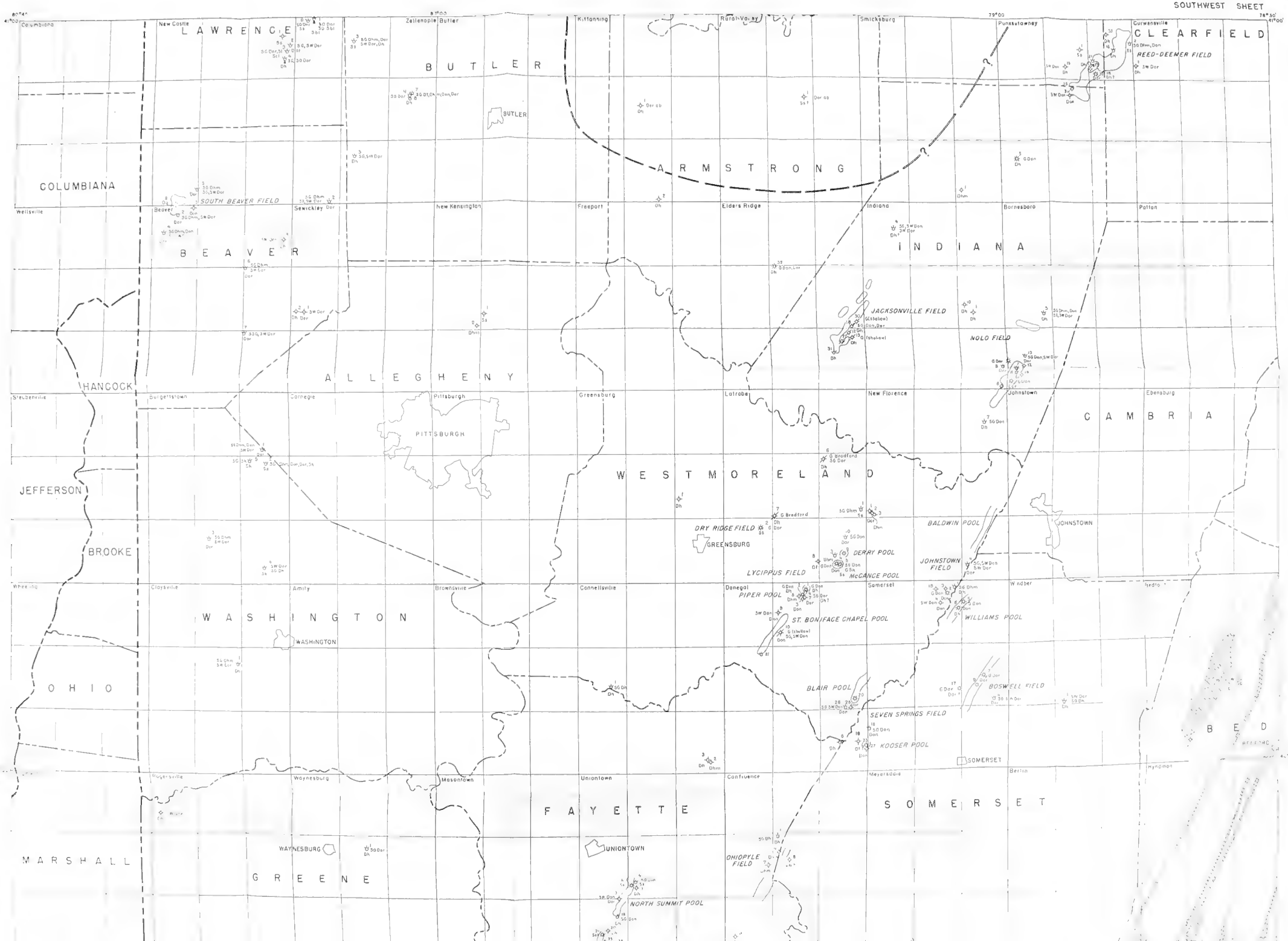
NORTHWEST SHEET

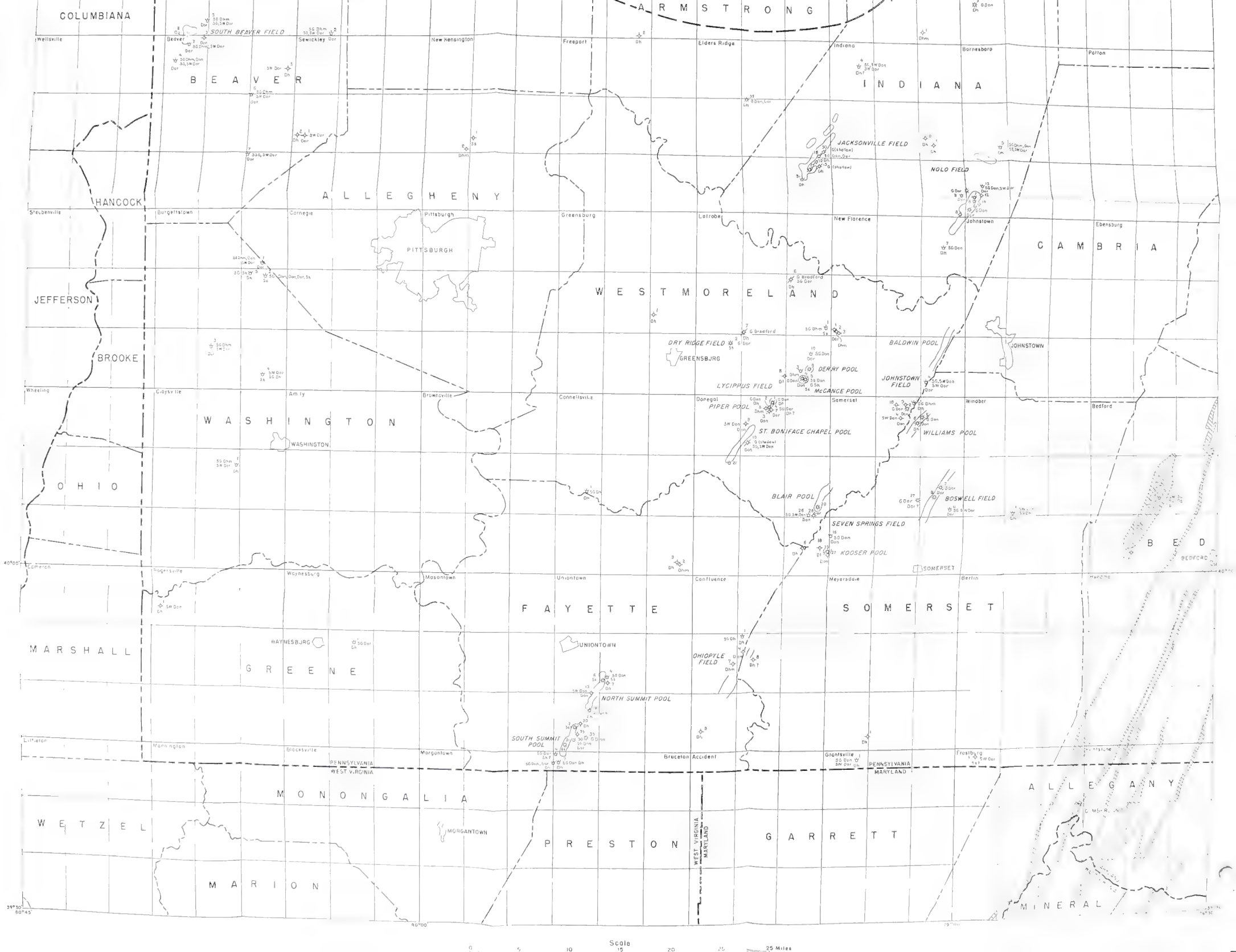


LAKE ERIE
CHAUTAUQUA
CATTARAUGUS
ERIE
ABSENT
NEW YORK
PENNSYLVANIA
SANDSTONE
ORISKANY
WARREN
MCKEAN
CRAWFORD
ASHTABULA
FOREST
ELK
ORISKANY SANDSTONE ABSENT
VENANGO
MERCER
PROBABLY ABSENT
CLARION
JEFFERSON
ORISKANY SANDSTONE
MAHONING
MEADE FIELD
LEXINGTON POOL
CORRY POOL
BEAVER DAM POOL
CORRY
CONNEAUT FIELD
TRACY POOL
INDIAN SPRING POOL
FORRO POOL
WARREN
BRADFORD
MEADVILLE
TITUSVILLE
TIDIOUTE
SHEFFIELD
KANE
OIL CITY
FRANKLIN
TIONESTA
RIDGWAY
MERCER
EMLENTON
CLARION
BROOKVILLE
PARKERS LANDING
BOONE MT POOL
DU BOIS POOL
ROCKTON POOL
HELVETIA POOL
Scale
0 5 10 15 20 25 30 Miles

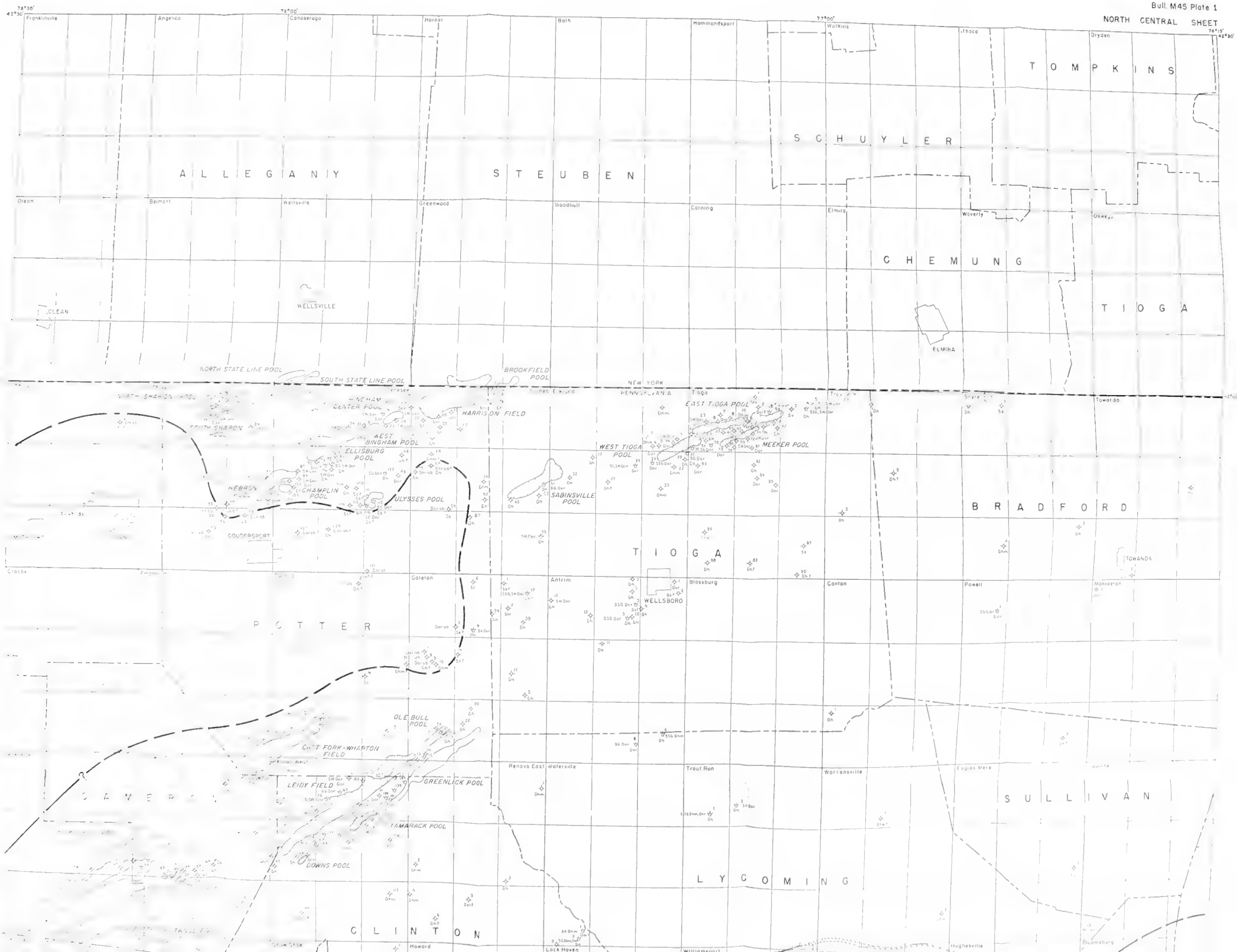
NORTHEAST SHEET

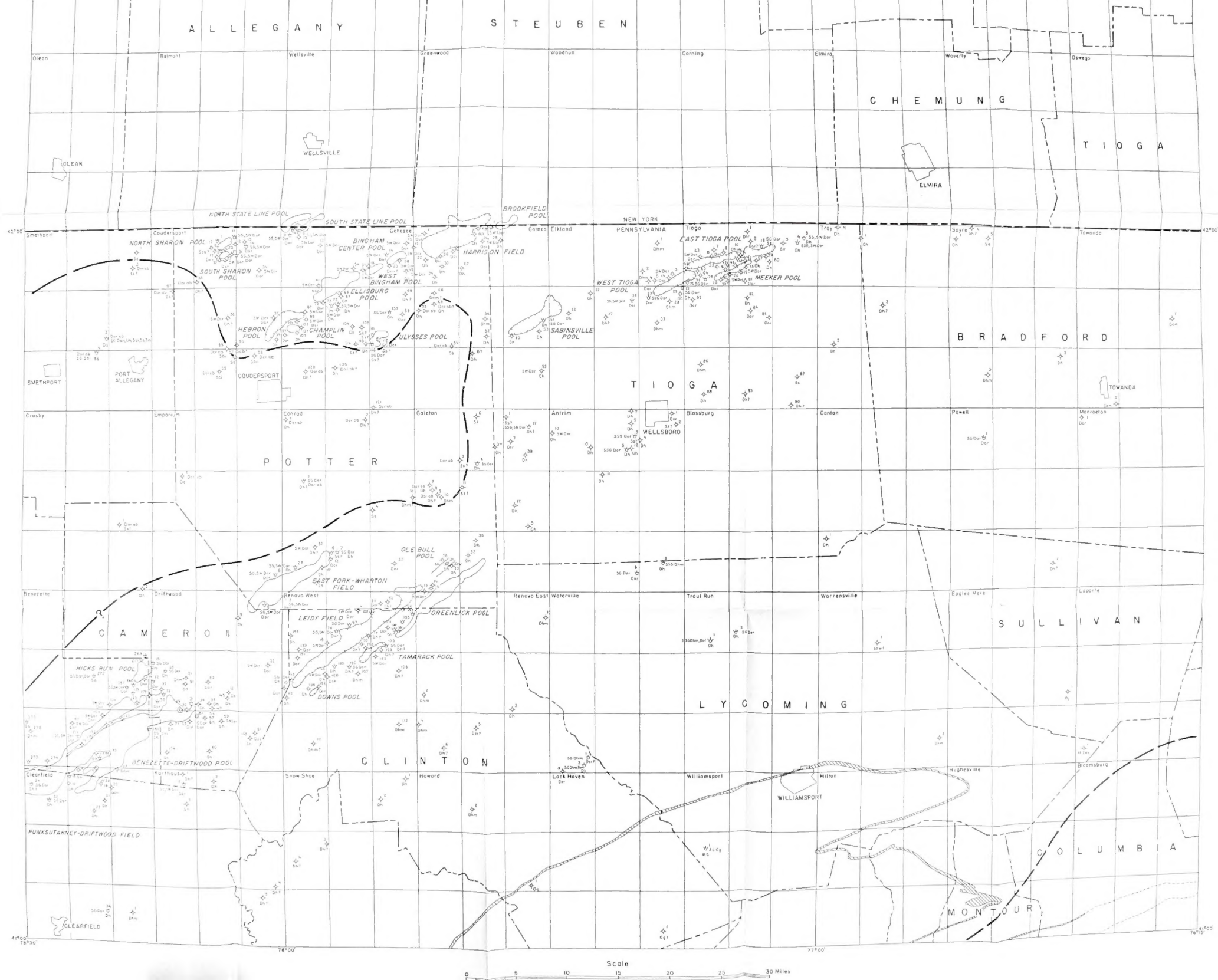



LAWRENCE
BUTLER
ARMSTRONG
CLEARFIELD
COLUMBIANA
BEAVER
INDIANA
ALLEGHENY
HANCOCK
CAMBRIA
WESTMORELAND
JEFFERSON
BROOKE
WASHINGTON
OHIO
FAYETTE
SOMERSET
MARSHALL
GREENE
BED
Columbiana
New Castle
Zelienople
Butler
Kittanning
Rural Valley
Smicksburg
Punxsutawney
Curwensville
Wellsville
Beaver
Sewickley
New Kensington
Freeport
Elders Ridge
Indiana
Bornesboro
Patton
Steubenville
Burgettstown
Carnegie
Pittsburgh
Greensburg
Latrobe
New Florence
Johnstown
Ebensburg
Claysville
Amity
Brownsville
Connellsville
Donegal
Somerset
Windber
Waynesburg
Masontown
Uniontown
Confluence
Meyersdale
Berlin
Hyndman
BUTLER
PITTSBURGH
WASHINGTON
WAYNESBURG
UNIONTOWN
SOMERSET
JOHNSTOWN
GREENSBURG
REED-DEEMER FIELD
SOUTH BEAVER FIELD
JACKSONVILLE FIELD
NOLO FIELD
DRY RIDGE FIELD
BALDWIN POOL
DERRY POOL
LYCIPPUS FIELD
McCANCE POOL
JOHNSTOWN FIELD
PIPER POOL
ST. BONIFACE CHAPEL POOL
WILLIAMS POOL
BLAIR POOL
BOSWELL FIELD
SEVEN SPRINGS FIELD
KOOSER POOL
OHIOPYLE FIELD
NORTH SUMMIT POOL


COLUMBIANA
ARMSTRONG
BEAVER
INDIANA
HANCOCK
ALLEGHENY
CAMBRIA
JEFFERSON
WESTMORELAND
BROOKE
WASHINGTON
OHIO
BEDFORD
FAYETTE
SOMERSET
MARSHALL
GREENE
MONONGALIA
WETZEL
PRESTON
GARRETT
MARION
ALLEGANY
MINERAL
PITTSBURGH
WASHINGTON
WAYNESBURG
UNIONTOWN
MORGANTOWN
GREENSBURG
JOHNSTOWN
SOMERSET
SOUTH BEAVER FIELD
JACKSONVILLE FIELD
NOLO FIELD
DRY RIDGE FIELD
BALDWIN POOL
DERRY POOL
LYCIPPUS FIELD
McCANCE POOL
JOHNSTOWN FIELD
PIPER POOL
ST. BONIFACE CHAPEL POOL
WILLIAMS POOL
BLAIR POOL
BOSWELL FIELD
SEVEN SPRINGS FIELD
KOOSER POOL
OHIOPYLE FIELD
NORTH SUMMIT POOL
SOUTH SUMMIT POOL
PENNSYLVANIA
WEST VIRGINIA
PENNSYLVANIA
MARYLAND
WEST VIRGINIA
MARYLAND
Wellsville
Beaver
Sewickley
New Kensington
Freeport
Elders Ridge
Indiana
Barnesboro
Patton
Steubenville
Burgettstown
Carnegie
Pittsburgh
Greensburg
Latrobe
New Florence
Johnstown
Ebensburg
Wheeling
Claysville
Amity
Brownsville
Connellsville
Donegal
Somerset
Windber
Bedford
Cameron
Rogersville
Waynesburg
Masontown
Uniontown
Confluence
Meyersdale
Berlin
Littleton
Mannington
Blacksville
Morgantown
Bruceton Accident
Grantsville
Frostburg
40°00'
39°30'
80°45'
80°00'
79°00'
Scale
0
5
10
15
20
25
25 Miles

NORTH CENTRAL SHEET




ALLEGANY
STEUBEN
CHEMUNG
TIOGA
BRADFORD
POTTER
CAMERON
CLINTON
LYCOMING
SULLIVAN
COLUMBIA
MONTOUR
NEW YORK
PENNSYLVANIA
WELLSVILLE
OLEAN
ELMIRA
SMETHPORT
PORT ALLEGANY
COUDERSPORT
TOWANDA
WELLSBORO
WILLIAMSPORT
CLEARFIELD
NORTH STATE LINE POOL
SOUTH STATE LINE POOL
BROOKFIELD POOL
NORTH SHARON POOL
SOUTH SHARON POOL
BINGHAM CENTER POOL
HARRISON FIELD
WEST BINGHAM POOL
ELLISBURG POOL
HEBRON POOL
CHAMPLIN POOL
ULYSSES POOL
SABINSVILLE POOL
EAST TIOGA POOL
WEST TIOGA POOL
MEEKER POOL
OLE BULL POOL
EAST FORK-WHARTON FIELD
LEIDY FIELD
GREENLICK POOL
TAMARACK POOL
HICKS RUN POOL
DOWNS POOL
BENEZETTE-DRIFTWOOD POOL
PUNKSUTAWNEY-DRIFTWOOD FIELD
Olean
Belmont
Wellsville
Greenwood
Woodhull
Corning
Elmira
Waverly
Oswego
Smethport
Coudersport
Genesee
Gaines
Elkland
Tioga
Tioga
Troy
Sayre
Towanda
Crosby
Emporium
Conrad
Galeton
Antrim
Blossburg
Canton
Powell
Monroeton
Benezette
Driftwood
Renovo West
Renovo East
Waterville
Trout Run
Warrensville
Eagles Mere
Laporte
Clearfield
Snow Shoe
Howard
Lock Haven
Williamsport
Milton
Hughesville
Bloomsburg
78°30'
78°00'
77°00'
76°15'
42°00'
41°00'
Scale
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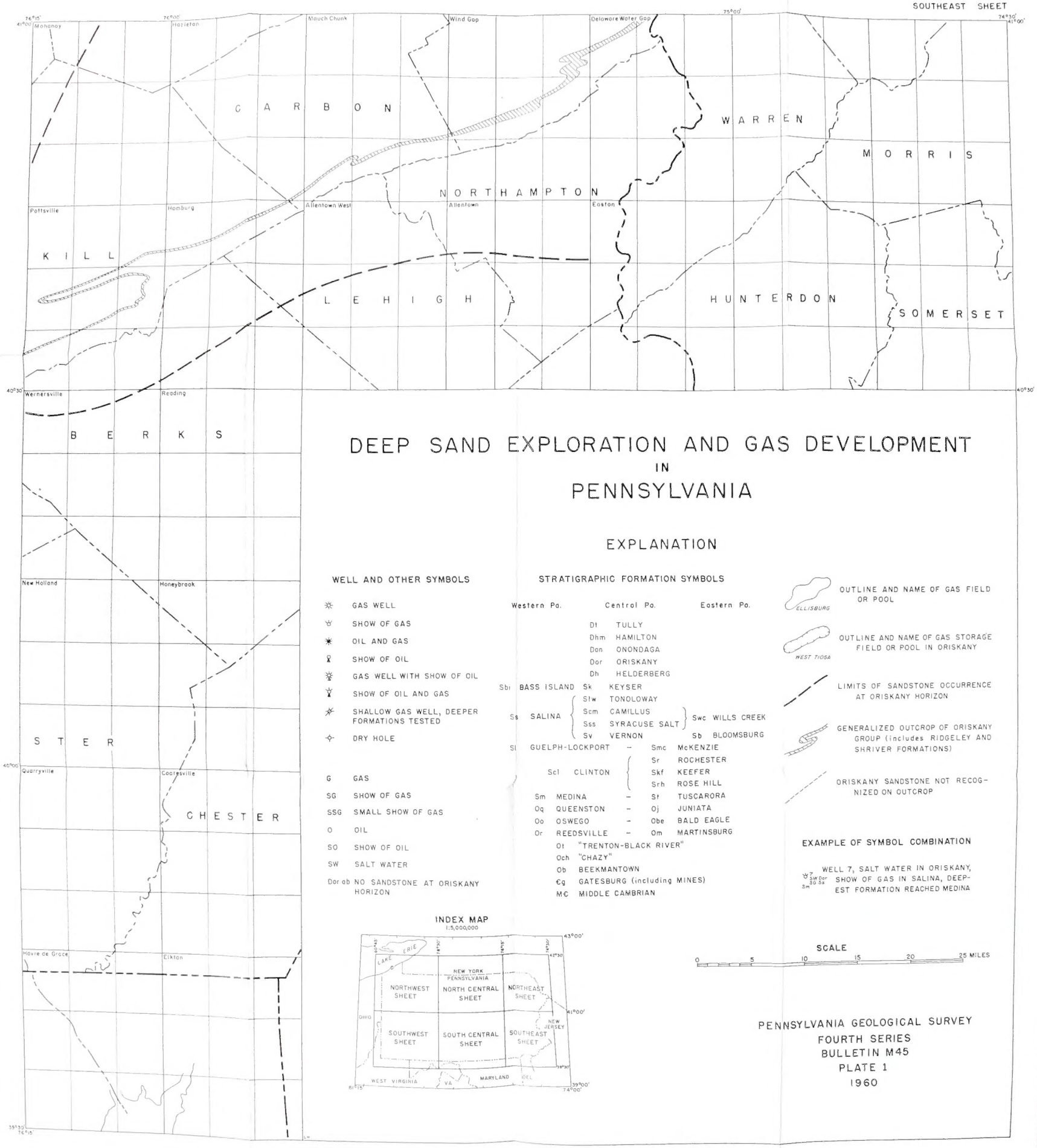
5
10
15
20
25
30 Miles



DEEP SAND EXPLORATION AND GAS DEVELOPMENT IN PENNSYLVANIA

EXPLANATION

WELL AND OTHER SYMBOLS

- GAS WELL
- SHOW OF GAS
- OIL AND GAS
- SHOW OF OIL
- GAS WELL WITH SHOW OF OIL
- SHOW OF OIL AND GAS
- SHALLOW GAS WELL, DEEPER FORMATIONS TESTED
- DRY HOLE

G	GAS
SG	SHOW OF GAS
SSG	SMALL SHOW OF GAS
O	OIL
SO	SHOW OF OIL
SW	SALT WATER
Dor ab	NO SANDSTONE AT ORISKANY HORIZON

STRATIGRAPHIC FORMATION SYMBOLS

Western Pa.	Central Pa.	Eastern Pa.
	Dt TULLY	
	Dhm HAMILTON	
	Don ONONDAGA	
	Dor ORISKANY	
	Dh HELDERBERG	
Sbi BASS ISLAND	Sk KEYSER	
Ss SALINA	Stw TONOLOWAY	
	Scm CAMILLUS	Swc WILLS CREEK
	Sss SYRACUSE SALT	
	Sv VERNON	Sb BLOOMSBURG
Sl GUELPH-LOCKPORT	–	Smc McKENZIE
Scl CLINTON		Sr ROCHESTER
		Skf KEEFER
		Srh ROSE HILL
Sm MEDINA	–	St TUSCARORA
Oq QUEENSTON	–	Oj JUNIATA
Oo OSWEGO	–	Obe BALD EAGLE
Or REEDSVILLE	–	Om MARTINSBURG
Ot "TRENTON-BLACK RIVER"		
Och "CHAZY"		
Ob BEEKMANTOWN		
Єg GATESBURG (including MINES)		
MC MIDDLE CAMBRIAN		

ELLISBURG — OUTLINE AND NAME OF GAS FIELD OR POOL

WEST TIOGA — OUTLINE AND NAME OF GAS STORAGE FIELD OR POOL IN ORISKANY

LIMITS OF SANDSTONE OCCURRENCE AT ORISKANY HORIZON

GENERALIZED OUTCROP OF ORISKANY GROUP (includes RIDGELEY AND SHRIVER FORMATIONS)

ORISKANY SANDSTONE NOT RECOGNIZED ON OUTCROP

EXAMPLE OF SYMBOL COMBINATION

7 Sw Dor SG Ss 3m — WELL 7, SALT WATER IN ORISKANY, SHOW OF GAS IN SALINA, DEEPEST FORMATION REACHED MEDINA

INDEX MAP

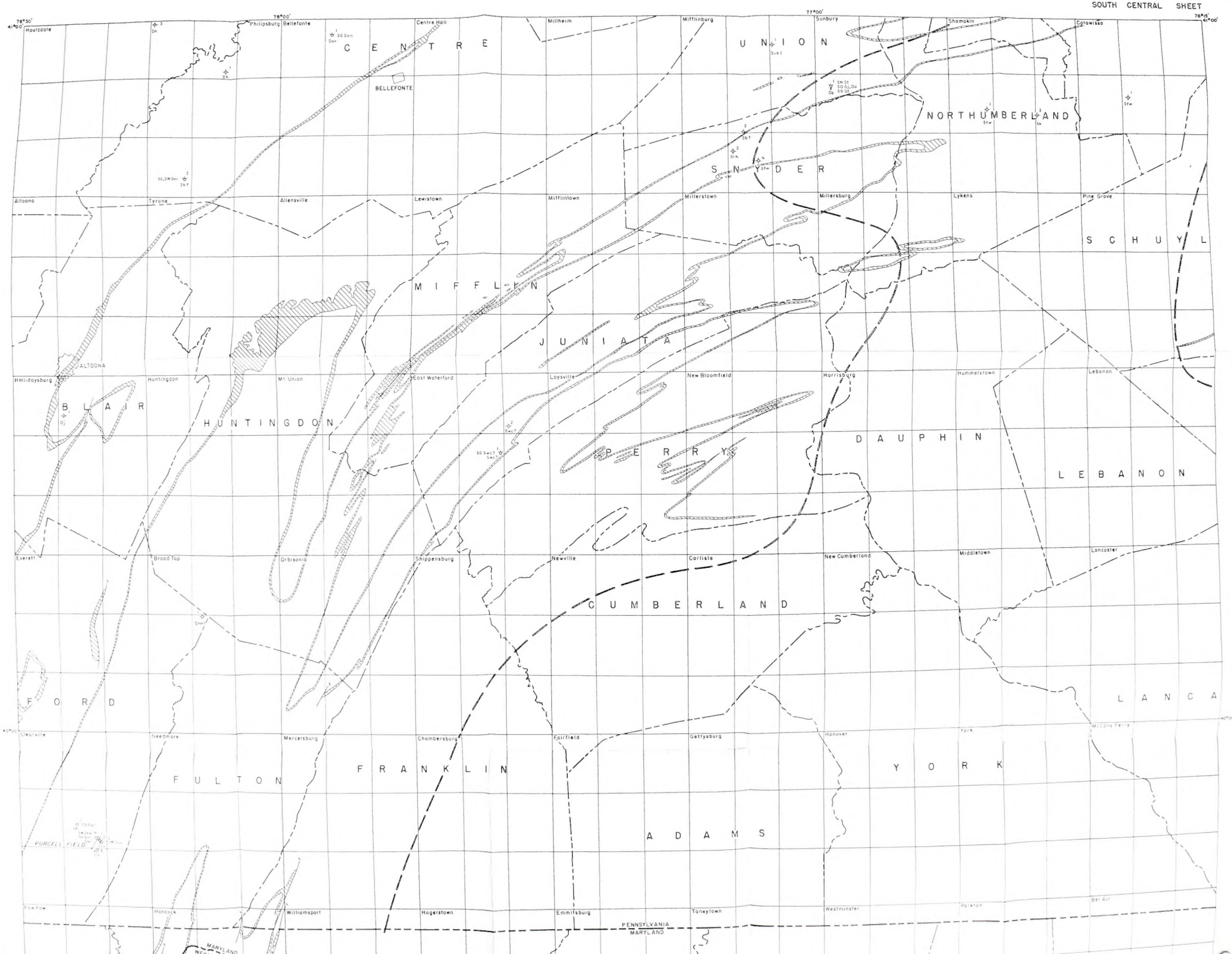
1:5,000,000

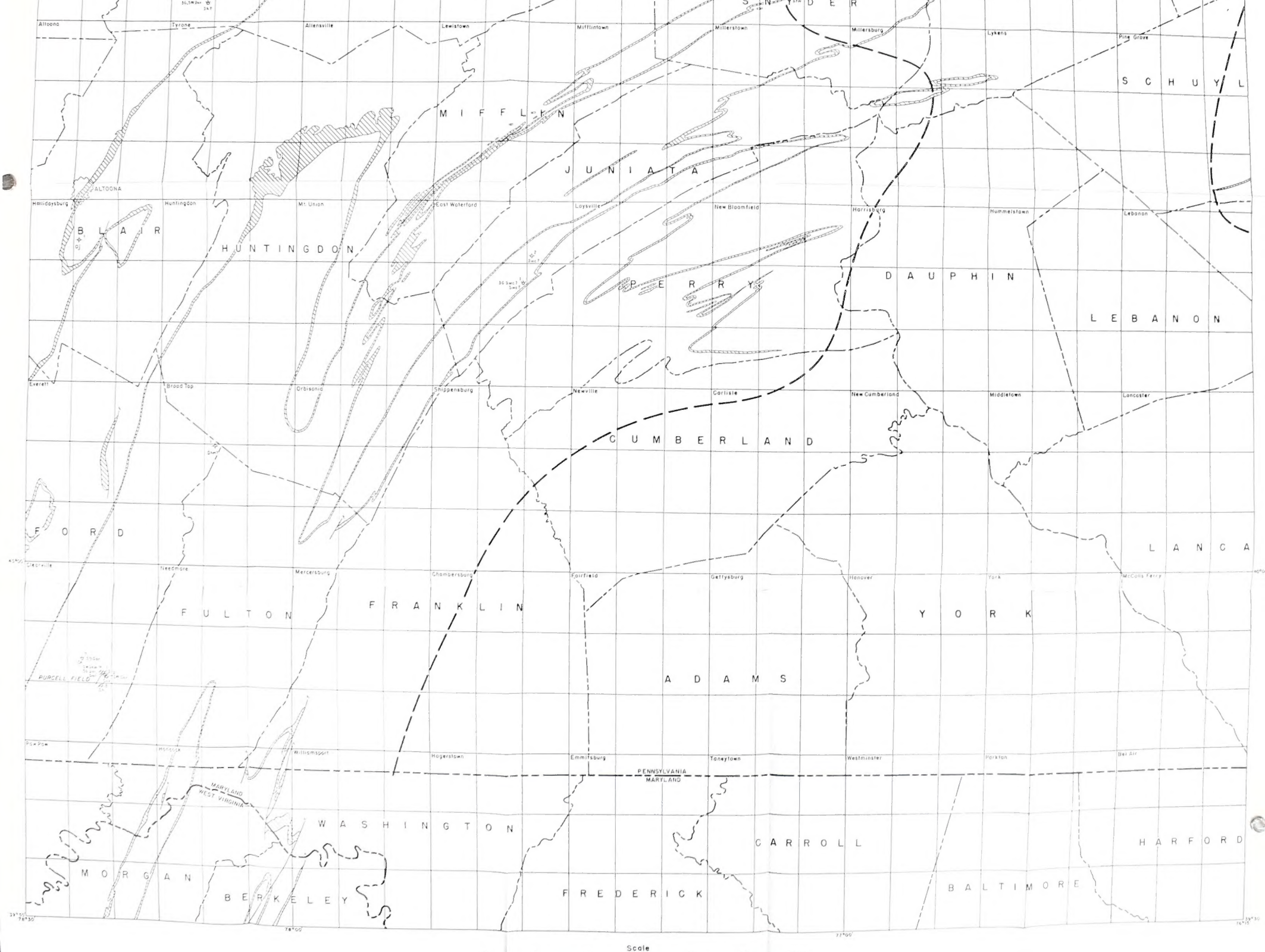
SCALE

0 5 10 15 20 25 MILES

PENNSYLVANIA GEOLOGICAL SURVEY
FOURTH SERIES
BULLETIN M45
PLATE 1
1960

SOUTH CENTRAL SHEET




Altoona
Tyrone
Allensville
Lewistown
Mifflintown
Millerstown
Millersburg
Lykens
Pine Grove
S C H U Y L
M I F F L I N
J U N I A T A
ALTOONA
Hollidaysburg
Huntingdon
Mt. Union
East Waterford
Loysville
New Bloomfield
Harrisburg
Hummelstown
Lebanon
B L A I R
H U N T I N G D O N
P E R R Y
D A U P H I N
L E B A N O N
Everett
Broad Top
Orbisonia
Shippensburg
Newville
Carlisle
New Cumberland
Middletown
Lancaster
C U M B E R L A N D
F O R D
L A N C A
Clearville
Needmore
Mercersburg
Chambersburg
Fairfield
Gettysburg
Hanover
York
McCalls Ferry
F U L T O N
F R A N K L I N
Y O R K
PURCELL FIELD
A D A M S
Pisgah
Hancock
Williamsport
Hagerstown
Emmitsburg
Taneytown
Westminster
Parkton
Bel Air
PENNSYLVANIA
MARYLAND
MARYLAND
WEST VIRGINIA
W A S H I N G T O N
C A R R O L L
H A R F O R D
M O R G A N
B E R K E L E Y
F R E D E R I C K
B A L T I M O R E
Scale
0 5 10 15 20 25 30 Miles